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TREATMENT OF HYPERTENSIVE VASCULAR DISEASE BY SODIUM RESTRICTION*

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SODIUM RESTRICTION is not the answer to the treatment of hypertension. Proof of this simple statement is the fact that there is little agreement among investigators as to the exact value of sodium restriction in this very important medical problem. The reasons for the widely divergent reports are not entirely clear but several important considerations occur to me in evaluating the discrepancies in the various reports. Therefore, before presenting the results of sodium restriction in hypertension, I should like to review these considerations so that my position on this problem may be clear from the outset.

The first consideration that arises is that which pertains to the etiology of the hypertension: Is the hypertension essential or is it the so-called malignant, rapidly progressive form of hypertension which occurs in the younger age group and which carries with it a grave prognosis? Is the hypertension secondary to some other condition such as primary renal disease? Is the hypertension due to some unusual or remedial condition such as that which is associated with pheochromocytoma; or is the hypertension part of the picture of coarctation of the aorta? The importance of investigating the etiology of every case of hypertension was clearly demonstrated to me not very long ago at a large medical center. The case was that of a young woman who had had a bilateral lumbo-dorsal sympathectomy for a severe degree of hypertension. Her hypertension persisted following operation but what was most puzzling was the fact that the usual symptomatic relief was lacking. Re-evaluation of the patient's problem at a later date disclosed that her hypertension was secondary to a cardiovascular

anomaly, namely, a coarctation of the aorta. Every one knows that nothing short of a repair of the defective aorta would have had any beneficial effect on her hypertension. Yes, not even a low sodium diet!

Other considerations which occur to me pertain particularly to the type of diet used and the total daily intake of sodium. The utter lack of palatability of all low sodium diets also brings up the question of the degree of cooperation that exists among doctor, patient, and patient's family. And what proof beyond the patient's word does the physician have that the patient is following his diet instructions accurately? Experience has proved beyond a doubt that the patient's word must be taken with a grain of salt (provided the physician is not on a low sodium diet) when asked if he has been faithful to the diet. The temptation for the patient to add extra grains of salt to his diet is indeed great when he is confronted with the dreadful, unpalatable low sodium diet.

The results of this study apply primarily to essential and malignant hypertension and the various grades of hypertension which occur between these two extremes. All the patients received the same diet, the only difference being the total daily caloric intake which was adjusted according to the patient's weight. Only those patients who showed a good to excellent degree of cooperation were included in this report.

In this brief presentation, no attempt will be made to discuss the numerous theoretical considerations of sodium chloride and water metabolism or the rationale of sodium restriction in hypertension. Nor will I compare the relative merits of the sodium restriction diet employed in this study with the Rice Diet.

Seventy-three patients were studied; fifty-two were females and twenty-one were males. Four patients were studied and treated in the hospital while the remainder, sixty-nine, were ambulatory. The patients were under constant medical supervision for periods of several weeks to 26 months.

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* Presented at the 139th Annual Meeting of the Rhode Island Medical Society, at Providence, R. I., May 11, 1950.

When originally seen, each patient was carefully examined and the basal blood pressure levels determined as closely as possible. In each instance, a careful search was made to determine the etiology of the hypertension.

Following a careful physical examination, the routine laboratory procedures were as follows: a routine urinalysis including urine chlorides; a complete blood count; blood urea nitrogen and creatinine when indicated; an X-ray of the chest, and an electrocardiogram. After the completion of these preliminary details, each patient was instructed on the use and application of the low sodium diet. On subsequent visits, blood pressure determinations were always made in the same manner, by the same observer, with a mercury manometer.

Four or five readings were recorded at one minute intervals with the subject in the sitting position. This was then repeated with the subject in the reclining position. The average of the several blood pressure readings was considered the true reading for any one examination.

Each patient was examined every two to three weeks for the first one or two months and then regularly at monthly intervals. In this manner, it was possible to make repeated blood pressure, urinary chlorides, and weight determinations and to review possible misunderstandings and/or errors in the application of the diet. The urinary chloride test, which is a simple and accurate office procedure, has proved of considerable value in detecting extra amounts of sodium chloride ingested by the occasional patient. My experience has been that when a patient was informed that any additional salt ingested was reflected by a proportional increase in the sodium chloride in the urine, he was more apt to cooperate.

The diet* employed was a low sodium-high potassium diet which was developed at the Rhode Island Hospital over three years ago.

Tables I through III give some idea of the essential food elements and other data which make up the low sodium-high potassium diet used in this study.

	LOW SODIUM— HIGH POTASSIUM DIET GRAMS	Rice Diet (9) GRAMS
SODIUM	0.168 (168.6 mg)	0.2
CHLORIDE	0.690 (690.8 mg)	0.15
POTASSIUM	4.79 (4,790.0 mg)	2.0—3.0
CHOLESTEROL	0.940 (940 mg)	0
CARBOHYDRATE	335.0	460.0
FAT	32.0	5.0
PROTEIN	65.0	20.0
CALORIES	1888.0	2000.0

TABLE I

*See acknowledgment on page 655.

Table I shows the average daily values of some of the essential food elements in the diet herein used as compared with the rice diet.

Table II shows the comparative amount of sodium chloride and sodium present in various hospital diets as well as in the diet under discussion and in the rice diet.

DIET	SODIUM CHLORIDE GRAMS	SODIUM GRAMS
AVERAGE DIET WITHOUT SALT RESTRICTION	6—15	2.4—6.0
AVERAGE DIET WITHOUT SALT AT TABLE	4—7	1.6—2.8
AVERAGE DIET WITHOUT SALT ADDED IN COOKING OR AT TABLE	3—4	1.2—1.6
"LOW SALT DIET"	1—2	0.4—0.8
LOW SODIUM—HIGH POTAS- SIUM DIET	0.4—0.5	0.168—0.2
RICE DIET	0.5	0.2

TABLE II

Table III shows the minimal daily dietary allowances recommended by the National Research Council and the daily vitamin and mineral content of the low sodium diet under discussion. The full diet has all the necessary vitamins.

	National Research Council	Low Sodium— High Potassium Diet
VITAMIN A	5000.0 I. U.	11,748.0 I. U.
THIAMINE (B ₁)	1.5 mgm.	1.54 mgm.
RIBOFLAVIN (B ₂)	2.0 mgm.	1.35 mgm.
NIACIN (Nicotinic Acid)	18.0 mgm.	18.18 mgm.
ASCORBIC ACID	75.0 mgm.	307.36 mgm.
IRON	12.0 mgm.	18.15 mgm.
CALCIUM	0.8 grams	0.655 gm. (655.0 mgm.)
PHOSPHORUS	0.88 grams	1.112 gm. (1112.0 mgm.)
IODINE	0.150—0.300 mgm.	0.11 mgm.

TABLE III

The story of what happened to the blood pressure of these patients during the period of sodium restriction can be best demonstrated by a few representative case summaries.

Figure 1 shows a group of ten patients with essential hypertension (with symptoms) treated by sodium restriction for periods of from 40 to 220 days. The ages ranged from 35 to 75 years. The original blood pressure readings ranged from 174/100 mm. Hg. to 224/110 mm. Hg. The graphs show that the readings at the time of this report had improved considerably.

Figure 2, C.L., a 62-year-old female with hypertensive vascular disease and chronic nephritis of 2 to 4 years' duration. She was also a mild diabetic. When originally seen, her blood pressure was

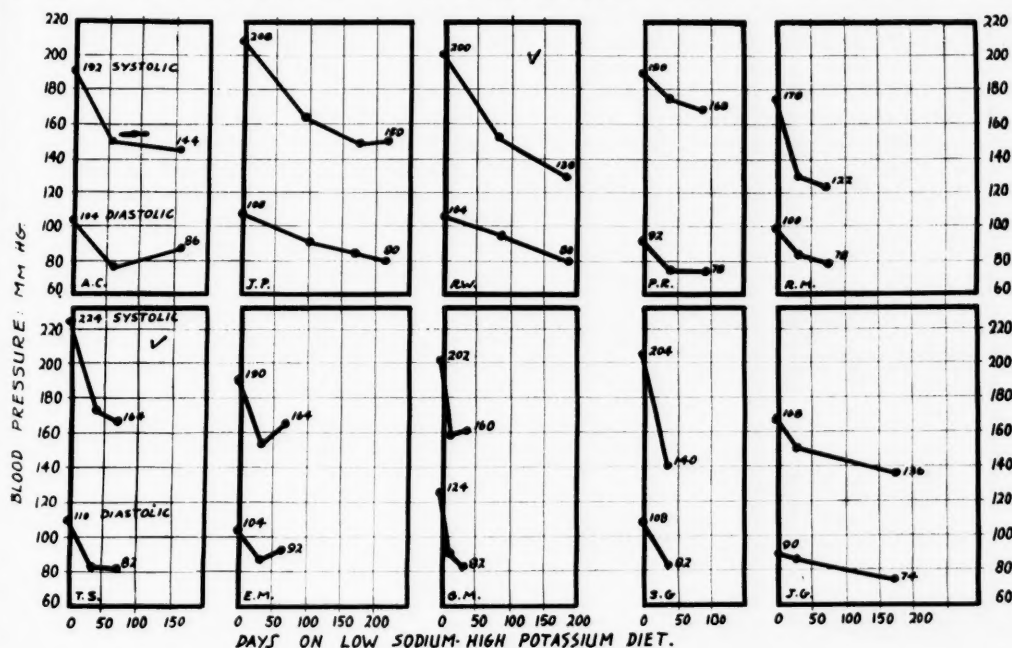


FIG. 1

210/120 mm. Hg. With perfect cooperation, within 10 days her blood pressure dropped precipitously and remained so for one month. Following this initial period of observation, the patient was not seen again until 228 days (7½ months) later, during which period she followed no dietary regimen whatsoever. The graph clearly shows what happened to her blood pressure during this period of dietary indiscretion. The low sodium-high potassium diet was again instituted and again a drop in blood pressure followed only to rise again when the patient found it too difficult to cooperate.

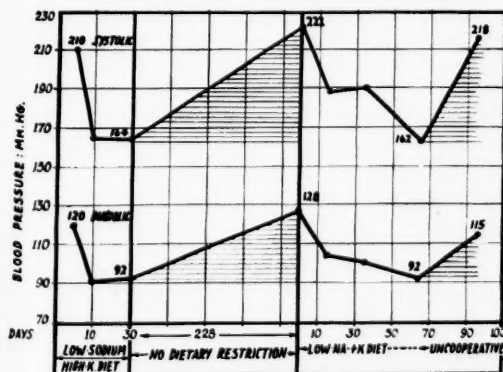


FIG. 2

Figure 3, V.S., a 51-year-old male with hypertensive vascular disease of two years' duration. Grade III changes were noted in the fundi. He

also had latent syphilis. When originally seen, his blood pressure averaged 200/108 mm. Hg. On the low sodium-high potassium diet, his blood pressure dropped to satisfactory levels. The patient went off his diet completely for one month and upon his return visit, the blood pressure averaged 204/114 mm. Hg. Reinstitution of the diet again resulted in a fairly satisfactory drop in blood pressure. This case and the preceding one would seem to lend support to the idea that an intimate relationship exists between sodium metabolism and hypertension.

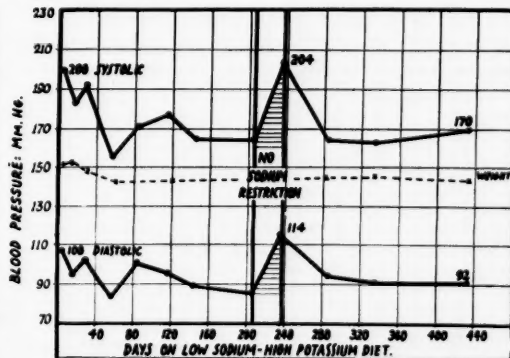


FIG. 3

Figure 4, C.M., a 56-year-old female with hypertension of 6 to 7 years' duration, grade III fundi changes, chronic nephritis, and obesity. When initially seen, her blood pressure averaged 230/124

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mm. Hg. Within three weeks, the patient's blood pressure was entirely normal and remained so until the patient liberalized her diet. When last seen on this liberal diet, her blood pressure was considerably higher, averaging 190/112 mm. Hg.

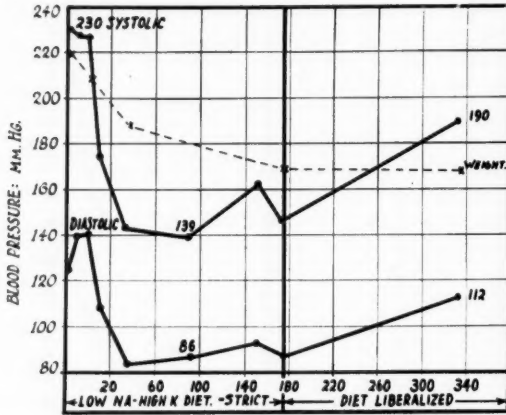


FIG. 4

Figure 5, L.C., a 35-year-old female with malignant hypertension and bilateral papilledema (grade IV retinitis). In 1941, she had a normal blood pressure. In 1944, it was approximately 170/120 mm. Hg. In 1947, she was admitted to the hospital because of high blood pressure, uncontrollable headaches, dizziness, blurred vision, and nocturnal dyspnea. Original blood pressure determinations averaged 230/146 mm. Hg. For the first 10 days in the hospital, the patient continued to have distressing headaches which were not controlled by any form of medication. However, about 3 days after the institution of the low sodium - high potassium diet, the patient became symptom-free and felt as though a drop in blood pressure had occurred when actually the blood pressure remained high, averaging 215/130 mm. Hg. This patient demonstrates the favorable effect sodium restriction may have on the distressing symptoms of hypertension in the absence of any appreciable drop in blood pressure.

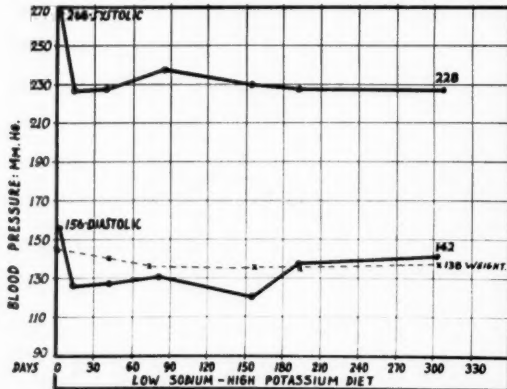


FIG. 6

Figure 6, A.T., a 59-year-old male with hypertension of two years' duration. He had grade IV retinitis with marked loss of visual acuity. His initial blood pressure determinations averaged 268/156 mm. Hg. He has been a very cooperative patient during the past 16 months but here again no drop in blood pressure has occurred. However, the patient feels that his blood pressure level is considerably lower than when first seen because he is absolutely symptom free and his vision has improved considerably. He has worked steadily since sodium restriction was started.

Figure 7, A.S., a 64-year-old male diabetic of 24 years' duration, controlled by insulin and diet. He had been in a moderate degree of failure for two years. He was hospitalized in December of 1948 because of hypertension, massive anasarca, left pleural effusion and albuminuria. His initial blood pressure averaged 208/108 mm. Hg. Within two weeks after the institution of the low sodium - high potassium diet, his blood pressure was entirely normal. His edema disappeared rapidly and he has been free of congestive failure since then. Blood pressure now, 16 months later, averages 144/70 mm. Hg.

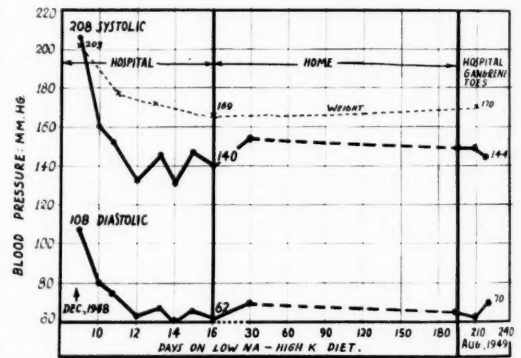


FIG. 7

Figure 8, H.C., a 50-year-old female with hypertensive vascular disease for approximately 3 1/2 years. Her blood pressure in 1944 was 180 systolic.

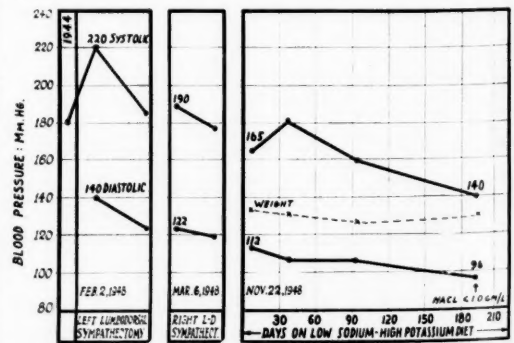


FIG. 8

Because of severe headaches, anginal pains, and grade III retinal changes, a bilateral lumbo-dorsal sympathectomy was performed in 1948. Blood pressure before operation was 220/140 mm. Hg. My original examination, six months after her operation, revealed a blood pressure which ranged from 165 to 180 systolic and 112 diastolic. She was placed on the low sodium-high potassium diet, cooperated excellently, and after a period of 190 days (6½ months) her blood pressure averaged 140/96 mm. Hg. Patient has been free of symptoms since the institution of the diet.

Figure 9, B.A., a 40-year-old male who has had hypertension since 1944 and severe headaches, dizziness, and progressive loss of vision since June

1945. Early in 1946, he had nearly lost the vision in his left eye and the visual acuity in the right eye was greatly diminished. Because of these findings, a bilateral lumbo-dorsal sympathectomy was performed in 1946. Blood pressure determinations before operation averaged 226/136 mm. Hg. A kidney biopsy revealed arteriolar sclerosis. Following surgery, there was a complete disappearance of symptoms and his vision improved remarkably. However, within a few weeks following discharge, the blood pressure ranged from 200 to 224 mm. Hg. systolic and 110 to 130 mm. Hg. diastolic where it remained until early in 1948 when headaches and blurring of vision were again beginning to manifest themselves. The surgeon referred the patient for a

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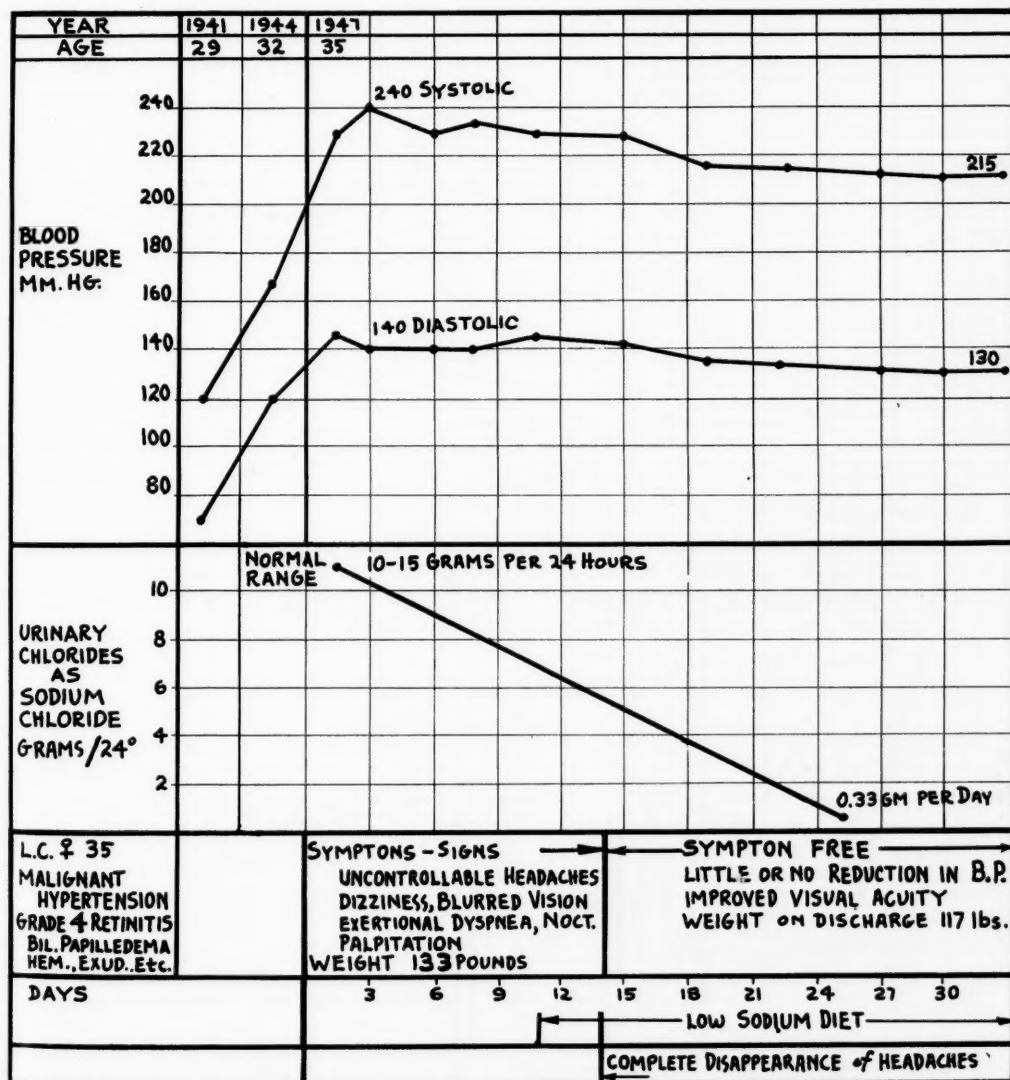


FIG. 5

trial on sodium restriction. Within two weeks after the institution of sodium restriction, the blood pressure averaged 154/88 mm. Hg. where it had remained with slight variation for one year. However, within the past year, in spite of excellent cooperation on the part of the patient, the tendency has been for the blood pressure to rise. The patient was last seen approximately six weeks ago and blood pressure at that time was 190/100 mm. Hg. Despite this, the patient has continued to work and has remained symptom free throughout the past two years.

Figure 10, A.R., a 42-year-old female with hypertension of 5 to 7 years' duration, grade II retinal changes. Blood pressure in 1947 averaged 220/120 mm. Hg. In 1949, prior to the institution of the low sodium - high potassium diet, her blood pressure averaged 220/115 mm. Hg. She has been under observation for a period of 7 months and when last seen, her blood pressure was 162/92 mm. Hg. and she was symptom free.

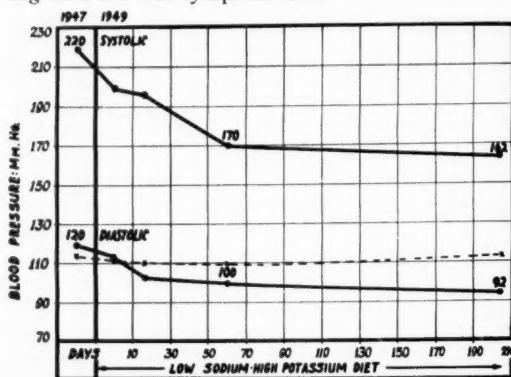


FIG. 10

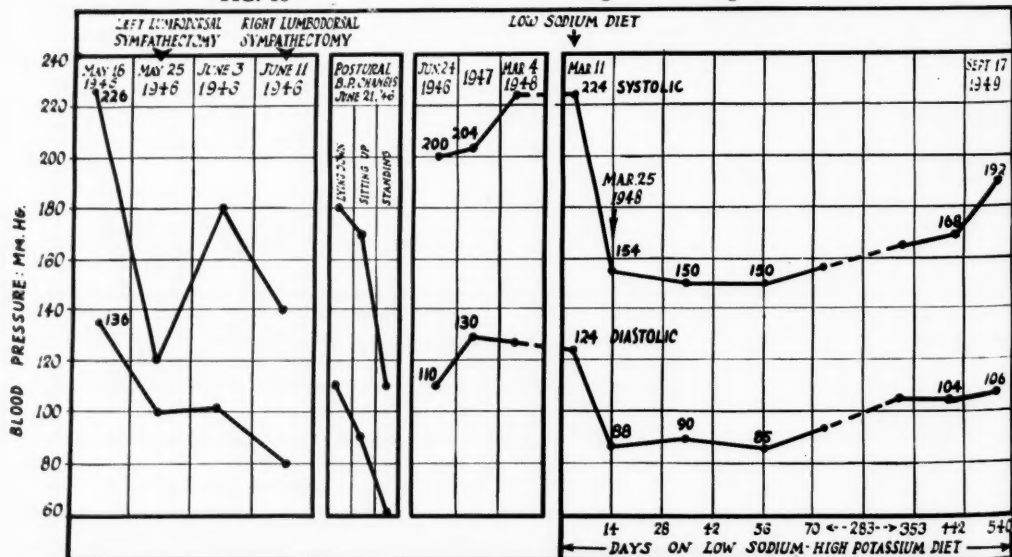


FIG. 9

Figure 11, E.C., a 47-year-old male with hypertension of 14 years' duration. He had renal stones in 1925 and again in 1936, and a streptococcal pharyngitis in 1935. He had grade III retinitis. His blood pressure had been as high as 215/126 mm. Hg. My initial blood pressure revealed an average of 190/110 mm. Hg. With excellent cooperation, his blood pressure dropped considerably. Eight months ago, his blood pressure was 138/88 mm. Hg. and now is in the vicinity of 152/80 mm. Hg. This patient has been under observation for over two years.

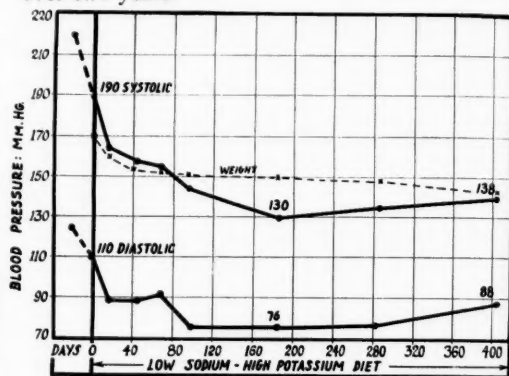


FIG. 11

Figure 12, P.R., a 38-year-old male physician who had a slight elevation in blood pressure and albuminuria in 1941 following an attack of streptococcal pharyngitis. He experienced severe headaches and dizziness in August of 1948. He took his own blood pressure and found it to be 260/140 mm. Hg. He was hospitalized in a large Boston clinic and his admission blood pressure there was 200/135 mm. Hg. He had a grade IV retinitis, albuminuria

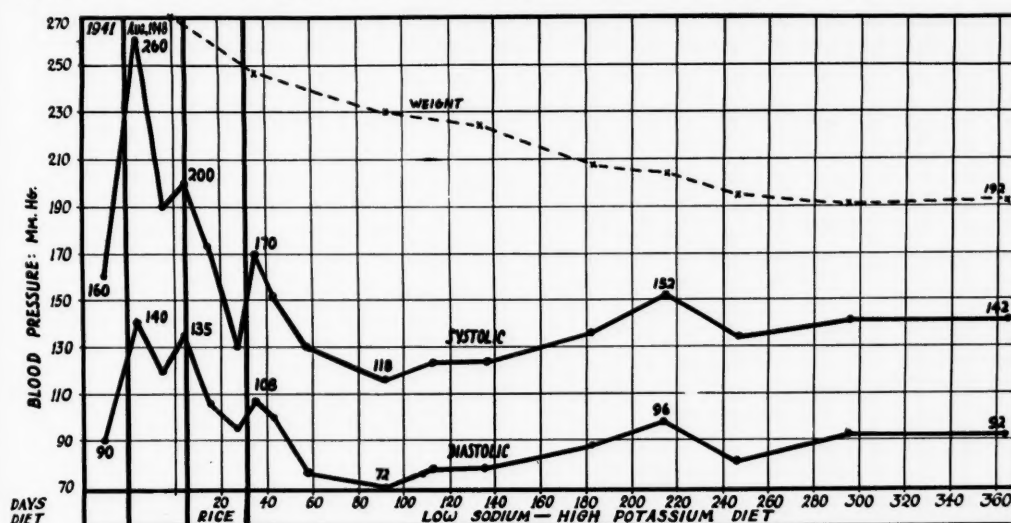


FIG. 12

and non-protein nitrogen values varied between 47 to 51 mg. per cent. He was placed on the rice diet while at the clinic and remained on it for approximately one month. As is clearly shown, he had a striking drop in blood pressure on this dietary regimen but the patient found it difficult to continue on the rice diet for very long because of nausea and vomiting. It was following this experience that the low sodium - high potassium diet was started. Figure 12 shows the dramatic drop in blood pressure this patient experienced on sodium restriction. He remains symptom free and has lost approximately 90 lbs. in the two years that he has been on the low sodium - high potassium diet.

Table IV represents the summary of the 73 patients treated by the low sodium - high potassium diet. It shows the number of cases in each of the four grades of hypertension and is self-explanatory.

No. Cases	Grade of Hypertension	Significant Drop in Blood Pressure		Insignificant Drop in Blood Pressure		Clinically Improved		Not Improved		Expired		Poor Cooperation	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
21	I	21	100	—	—	21	100	—	—	—	—	1	48
22	II	15	68	7	32	22	100	—	—	—	—	0	0
21	III	14	67	6	28	18	86	3	14	1	5	7	33
9	IV	3	33	4	44	7	78	2	22	2	22	0	0
73		53	73%	17	23%	68	93%	5	7%	3	4%	8	11%

Summary of 73 hypertensive patients treated medically by a low sodium - high potassium diet for a period of 1 to 26 mos.

TABLE IV

Summary

In general, a significant drop in blood pressure occurred in 73% of the patients with hypertension

whereas 93% of the patients of all grades were clinically improved. Approximately 11% of the patients in this study showed poor cooperation.

Conclusions

In conclusion, I should like to repeat that sodium restriction is not the answer to the treatment of hypertension. However, until better methods of treatment are available, one should not hesitate to give sodium restriction a trial in the management of hypertensive vascular disease.

*ACKNOWLEDGMENT. I am indebted to Miss Ruth Mather, Therapeutic Dietician, Rhode Island Hospital, and to Miss Hazel Parry, formerly of the Rhode Island Hospital, for their assistance in the preparation of the low sodium - high potassium diet used in this study.

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THE DOCTOR AND THE NATIONAL EMERGENCY*

BRIGADIER GENERAL PAUL I. ROBINSON, MC, U.S.A.

The Author. *Brigadier General Paul I. Robinson, MC, U.S.A., Chief, Personnel Division, Office of the Surgeon General.*

THE CURRENT EMERGENCY began rather abruptly with a clash between military forces of a nation that had been severed in the occupation negotiations following the end of hostilities in World War II. It was quickly decided that the United States, as a member of the United Nations, would resist the aggression of the North Koreans in South Korea. Almost immediately our Nation was faced with the task of rendering medical service to our people participating in the combat which followed.

Following World War II the Army established residency training programs in its large hospitals. These programs were established on the advice of such eminent educators as Dr. Hugh Morgan, and thousands of physicians throughout the Nation have assisted the Army in making the training of exceptionally high standard. All have been submitted to the proper authorities within the profession for adjudication and accreditation. It was not long until it was evident that young physicians who decided on careers in the Army desired, and demanded, an opportunity to pursue residency training. These young men had been indoctrinated in their medical schools with the firm belief that it was necessary for them to pursue 2, 3, or 4 years of postgraduate training before they were suited to begin their medical careers. Furthermore, the physicians in the military service had largely been assigned to management duties of one type or another during the war, and in order for them to again assume medical care functions, it was necessary that they be re-trained. The residency programs were an admirable medium for this accomplishment. Whereas the Army had only 75 board specialists in its regular service at the end of World War II, it now has, as a result of its intensive training efforts, 202. In addition, there are about 300 Regular Army medical officers who are in the practice phase of training preparatory to taking the examinations of the specialty boards. In contrast to civilian life, the Army is able to conduct a con-

trolled residency training program and place in that program only those to meet specific requirements, by specialty, for the years ahead. On advice of civilian medical educators, this program has been devised so that in 5 or 6 years, about 30% of the Regular Army Medical Corps will be board-certified specialists. In order that those in general practice in the Army would be brought to the same high standards in medical accomplishment, residencies in general practice were also begun.

Recruitments for Korea

None of us had thought of the residency program as a pool of officers who could be called upon in an emergency. But at the beginning of the Korean conflict, there were only some 190 Army physicians in the entire Far East Command, comprising Japan, Okinawa, Guam, the Philippines, and Korea. The staffing requirement for the then existing force was 425 physicians. The Army Medical Service had been rendering medical care with far fewer physicians than it required, and the Far East Command was no different than all other areas. It was obviously necessary to increase the number of physicians in the Far East very rapidly.

Appeals were made to all the company grade officers in our Reserve. Response was very low, in fact of the more than 3,000 who received letters, only 40 volunteered for immediate active duty. We next thought of those in residency programs. Our large 5 teaching hospitals had very small permanently assigned staffs, a residency staff which was, even at that time, below the number that could have been accommodated under available clinical material criteria, and a normal number of interns. In other words, all residents could not be taken from the program if the hospitals were to continue to function. Therefore, it was decided to reduce each service to the minimum considered necessary for the continuation of medical care in the hospital. This was done, and 132 residents were sent from military hospitals to the Far East by air early in July. In addition, we had 101 officers who had just finished internships the 30th of June, who could be made available immediately to the Far East; and they too, were flown to Japan early in July.

More than 2 years ago, in an endeavor to produce more rapidly the number of trained physicians

* Presented at the New England Post Graduate Assembly, at Boston, Massachusetts, November 7, 1950.

needed in the Army, we embarked upon a program whereby we commissioned officers in civilian life who had acceptable residencies, and allowed them to continue in those residencies. It was evident that they, too, would have to be brought on duty in order to meet our responsibilities for medical care. Wires were sent to the superintendents of the hospitals in which they were located, and with very few exceptions all agreed to assist us in making their release effective as soon as possible. Eighty-nine of these civilian residents were also flown to the Far East. In order to augment the medical strength in support of the combat, stations throughout the United States were further depleted; and as of this date there are approximately 750 physicians in the Far East Command. All medical commanders are qualified by training or experience in World War II and a large majority of the Medical Service Corps officers have had courses at our Medical Field Service School.

The Army Medical Service has rendered medical care for American troops in the Korean conflict largely by utilization of the physicians on hand at the beginning of the conflict. Because of its training programs, it was able to furnish officers in all of the required specialties, and present indications are that the medical care was creditable in every respect.

Considering both the time period and troop strength involved, casualties in the Korean campaign have been quite heavy. The wounded-in-action of the first 3 months equalled the number of American wounded in the first 1½ years of our participation in World War II. Despite this, there is every indication that an extraordinary record is in the making. In World War I, for example, the fatality rate for wounded soldiers reaching treatment centers was over 6 percent in World War II, this rate had fallen to 4½ percent. Today, despite the admittedly incomplete nature of our statistics, it appears likely the fatality rate will drop to something less than one-half of the World War II rate.

Contributing materially to this fine record was the splendid work done by Air Force and Navy evacuation planes in the rapid movement of large numbers of patients, both within Korea and Japan and between the Far East and the United States.

Doctor Draft Legislation

Soon after the beginning of the Korean conflict, Congress authorized the armed forces to call upon their Reserves to effect the necessary expansion. On 10 August 1950, the Army placed its first call for medical officers with the Army Commanders. This call was for only 734 physicians. At about the same time the medical profession of the United States endorsed legislation to require service of physicians who were trained at Government ex-

pense, or those who did not serve in World War II. This legislation was in the form of an amendment to the existing Selective Service Act. It was passed by the Congress and became Public Law 779 on 9 September 1950. This law placed former ASTP and V-12 participants and those deferred to pursue medical education during World War II in first priority for service. On 16 October they were registered by the Selective Service System. The President has directed that this group of young physicians be utilized before calls are made on those who served in World War II. Before the President's directive had been promulgated, the Army had already decided that it could reduce the number of Reserve officers with World War II experience by approximately one-half. In fact, the original 734 call was reduced to 364. But since the President's letter cancelled even this call, special authority had to be obtained to order 130 company grade officers, and 149 field grade officers to duty to meet urgent demands that could not await the implementation of Public Law 779. All company grade officers were notified with their orders that they would be released from the service and allowed to return to their homes as early as possible, probably in January or February. This same provision does not apply to the field grade officers, who are the commanders and the specialists required for positions of responsibility. In addition, the Navy has loaned the Army 570 physicians until replacements can be obtained.

In endorsing legislation calling for draft of physicians, the medical profession undoubtedly, after consideration of all means whereby it could support the armed forces, decided that the least disruption to the physicians of the Nation would be caused if the Priority I and II groups would be called first. It now appears that approximately 85 percent of these young physicians are in some type of residency training in hospitals throughout America. Many hospitals, in surveying their numbers who fall within these groups, have found that one-half or more may be subject to service under the law. Many feel that their teaching programs will be severely handicapped, and some are of the opinion that their medical care programs actually may suffer. Both conditions would be true if all Priority I and II physicians were called into service immediately. While figures are not available at the present time, it would seem likely that one-half of the residents who fall into Priority I or II of the law might be called to duty within the next six or eight months. Teaching hospitals should immediately prepare themselves to meet this loss. Our experience in the Army has indicated that it can be met, although, of course, it does require additional effort on the part of many individuals. But we believe that our experience indicates that this can be done without severe disruption.

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Many young physicians themselves are asking the question if they can be allowed to finish their current year in residency programs. Obviously no such commitment could be considered by the armed forces, because it is impossible to look into the future to determine to what extent our forces will remain in combat. The President has emphasized that events in Korea will in no way deter the planned expansion of the armed forces. In the Army, this expansion is to take place during the next eight months. Obviously, then, residents cannot be deferred until next July.

Mechanism for Call to Active Duty

The mechanism of bringing registrants to active duty appears complicated. We have done everything in our power to align the various Government agencies so the process will be as simple as it can be made. The Army, only, has submitted a request to the Selective Service System. Those classified as available for immediate active duty by the Selective Service System will be ordered for their pre-induction physical examinations beginning 16 November. An information form filled out on registration by each individual indicates whether or not the registrant desires a commission. The papers of *all* registrants, regardless of their stated desire for commissions, are forwarded by the Selective Service System, after pre-induction physical examination, to the Army Commanders. The Army Commander determines the acceptability of the registrant for active duty. If he is found acceptable and has requested a commission, the Army Commander is authorized to commission the registrant in the Corps that corresponds to his profession. The registrant is then instructed to notify his local board of the fact that he holds a commission. For those who have stated they do not desire a commission, the Army Commander also makes the decision as to the acceptability and returns these forms to the Selective Service System, at which time induction processes begin. Each local board will have a quota and will begin processing individuals for call to duty under this quota. Those who have received commissions and are thus eligible for call to active duty are to be subtracted from the quota of the local board. The question has been asked, especially by those in residency programs, as to how long they can withhold applying for a commission and still be able to obtain one. This has been a most difficult question to answer because it is the desire of all of us in the military, and the Selective Service System as well, that no physician be inducted into the service as a recruit. Since the Army is the only Department which has placed a requisition with the Selective Service System, it is more or less incumbent on the Army to answer this very pointed question: What is the latest time a registrant may apply for a commission and receive

it before being inducted? This question is under study by the Personnel Policy Board of the Office of the Secretary of Defense. The Army, in the meantime, has expressed its opinion that a physician may not expect to receive a commission if he waits until he receives his induction notice before applying. I would like to add here that the Army will make every effort to process applications as rapidly as possible, but I would not guarantee that commissions could be assured on applications received after the notice for induction is received by the individual.

If all registrants would say they desire a commission, or if all would say they do not, there would be no problem of distributing the orders to active duty. If just enough obtain commissions to fill the military requirements and the military is forced to call them to active duty, it would appear that those who indicated they did not desire a commission have won for themselves a deferment. In any event, such a deferment can only be temporary and those individuals are taking a chance that they will be suddenly called and be unable to avail themselves of a commission before being inducted.

There is nothing to prevent any physician who so desires, to apply for a commission before being sent for his pre-induction physical examination. He must consider that he is eligible for call to duty when he accepts the commission, because this complies with the spirit of the legislation and the desire of the profession. Many have been encouraged to apply for commissions before their pre-induction physical examinations. Certain advantages accrue to them individually, in that they are more likely to get assignments within their spheres of interest and training. If they do have such assignments, they have a better chance of obtaining accreditation from their specialty boards for the experience they accrue while in the service. The needs of the armed forces in the immediate months ahead are more acute than they will be later, and those who do obtain commissions early and come on active duty will undoubtedly gain a source of personal satisfaction from the service that they render.

Physical Standards

There have been differences in the physical standards for officers and enlisted men for the military service for a great many years. For the commissioning of individuals under this law, however, the physical standards which apply for induction of enlisted men have been made applicable. In other words, an individual under P. L. 779 who meets the physical requirements for induction is eligible for commission in the Medical, Dental, or Veterinary Corps. This does not mean that an individual who barely meets induction standards would be eligible for a career in the regular service.

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CIRCULATORY MANIFESTATIONS OF OBSTRUCTION OF THE SUPERIOR VENA CAVA IN A PATIENT WITH PORTAL HYPERTENSION*

DAVID S. HOWELL, M.D.

The Author, David S. Howell, M.D., formerly Resident, Rhode Island Hospital, and now a member of the House Staff, Hospital of The University of Pennsylvania.

THE FIRST authentic case of obstruction of the superior vena cava was reported by William Hunter in 1757 in *Medical Observations and Inquiries*. Since 1903 when Sir William Osler described two cases with autopsy findings and reviewed the literature,² Fischer,³ Rauth,⁴ Dana,⁵ and Ehrlich, Ballon and Graham⁶ have reviewed the literature and given comprehensive reports. An excellent description of the symptoms and signs of this syndrome based on anatomical variations was made by Hinshaw and Rutledge.⁷ Recently, a compilation of the world literature up to 1946 was made by McIntire and Sykes,¹ who list a bibliography including 524 cases. However, in none of the cases was the superior mediastinal syndrome associated with portal hypertension or esophageal varices. For this reason, the following case report is made and the superior mediastinal syndrome is reviewed.

Case Report

W. B. No. 457618—R. I. H.

This 59-year-old male was admitted November 26, 1949. The patient had been well until November, 1948, when he first noticed a morning cough, producing a small amount of whitish sputum which persisted throughout the year before admission. In August, 1949, there appeared dysphagia and a choking sensation associated with his cough. One month later he began to have hoarseness and felt that food was delayed in the mid-esophagus. In November, three weeks prior to entry, he suffered increasing weakness, fatigue, dyspnea on exertion and orthopnea. A fluoroscopy performed then showed a mass in the superior mediastinum. During the week before entry, he regurgitated both solids and liquids. There had been no significant weight loss.

For seventeen years, the patient had consumed large quantities of beer, taking a minimum of 8-10

glasses a day accompanied by an inadequate diet. He had no history of abdominal swelling, jaundice or hematemesis.

Physical Examination. Blood pressure 160/85; apical rate 86; temperature 99. He was a well-developed, well-nourished male with slight orthopnea. His voice was hoarse. The skin of the face and neck had a purplish hue. The superficial veins of the neck, forehead and arms were distended. There was dilatation of the lateral thoracic and superficial epigastric branches of the internal mammary and external jugular veins. These veins appeared to fill from above. In addition, there were many venules scattered over the entire chest. The eyes revealed bluish injected sclerae, but the retinal veins were only slightly engorged. There was some A-V nicking. The throat and soft palate were injected. Auscultation of the chest showed decreased voice sounds, breath sounds and vocal fremitus above the right scapula next to the spine. There was a positive D'Espine's sign. The heart findings were within normal limits. The liver edge was felt to descend eight centimeters below the right costal margin, and there was some shifting dullness. Aside from external hemorrhoids and bilateral saphenous varicosities, the remainder of the physical examination was negative.

Laboratory. Initial laboratory studies revealed RBC 3.9 million, WBC 11,200 with 81 polys, 19 lymphs. BUN 7 mgm.%; F.B. glucose 124 mgm.%. Liver function studies revealed total serum protein 6.5 gm.%, albumin 3.2 gm.%, cholesterol 162 mgm.%, icterus index 3, thymol turbidity 2M units. Prothrombin activity 70%. BSP 50% retention at 30 minutes, 80% retention at one hour. The blood Hinton was negative. Sedimentation rate was 36 mm./hour. Venous pressure measured with a water manometer in the antecubital and femoral veins revealed the following: Right arm—347 mm., left arm—340 mm.; right thigh—130 mm., left thigh—120 mm. Decholin circulation time measured the following: Right arm—35 seconds, left arm—32 seconds; left thigh—20 seconds. (The normal venous pressure should be not over 120 mm. of water, and the decholin circulation time should not be over 16 seconds, arm to tongue.)

continued on next page

* Presented before the Providence Medical Association at Providence, R. I. on October 2, 1950.

Fluoroscopy revealed a lobulated, nonpulsatile mass involving the medial half of the right upper lobe, compressing the anterior wall of the upper third of the esophagus and similarly compressing the trachea. The fluoroscopic findings were confirmed by combined bronchoscopy and esophagoscopy in which severe deviation of both the esophagus and trachea and large esophageal varices were noted. The varices were seen by barium swallow to fill almost the entire esophagus. No abnormal tissue was found at bronchoscopy, and Papanicolaou smears were negative.

The patient was given 1,740 Roentgen units to the right chest anteriorly and posteriorly over a fourteen-day period with notable subjective improvement and slight shrinkage in the size of the mass by chest film.

Anatomical Discussion

An understanding of the anatomical considerations below will aid the clinician in establishing a site of obstruction. The superior mediastinum is a narrow space bound by two unyielding walls, the thoracic vertebral column posteriorly and the sternum anteriorly. The mediastinal pleurae form the lateral boundaries. Through this space pass the esophagus, trachea, aorta, innominate veins and superior vena cava. When a space occupying lesion expands in the superior mediastinum, the structures whose walls are most collapsible are the first to become obstructed. Thus, the trachea with its cartilaginous rings and the thick-walled aorta containing blood at high pressure are relatively protected. Also, the esophagus by its position behind the trachea is defended from many anterior lesions. It is not surprising to find that the thin-walled great veins carrying blood at a low pressure are the first superior mediastinal structures to become obstructed.

The site of obstruction can be ascertained with relative certainty from the superficial collateral pathways which develop (see Figure I). Obstruction of the left innominate vein (left A in the diagram) causes blood to pass from branches of the left external jugular and left lateral thoracic veins to branches of the left internal mammary vein. This plexus of dilated veins localized over the left anterior chest is a diagnostic sign of innominate vein obstruction. From there, the blood passes via the left internal mammary, intercostal, hemiazygos and azygos veins, to the superior vena cava. A similar pattern on the right side is found in right innominate vein obstruction. With obstruction above the azygos entrance (site B), a prominent venous pattern is seen on both sides of the chest. Blockage of the superior vena cava at the entrance of the azygos vein (site C) or below it (site D) prohibits this most effective route of collateral flow into the superior vena cava. Indeed,

in the latter state (obstruction at site D), flow through the azygos system is reversed, carrying blood, as shown in the diagram, to the ascending lumbar, intercostal and internal mammary veins. Blood is directed from the internal mammary veins and its branches to (1) the lateral thoracic, superficial epigastric, saphenous, iliac, and inferior vena cava and (2) the superior and inferior epigastric, iliac and inferior vena cava. A small flow may eventually reach the latter vessel by the azygos and ascending lumbar veins. Inasmuch as these channels are of insufficient calibre for the load imposed upon them, venous pressure is elevated, and the circulation time from arm to tongue is slower in cases with obstruction above the azygos entrance than in cases with obstruction at or below it. Clinically, superior vena cava obstruction at, or below, the azygos vein is diagnosed by the pattern of dilated veins extending from the lateral thoracic walls to the lower abdomen. To differentiate superior from inferior vena cava obstruction, which also gives a superficial venous pattern, segments of two of the dilated veins—one above and one below the umbilicus—are collapsed by spreading the examining thumb and index finger along their course. One finds that both veins fill from above in the former condition while both fill from below in the latter.

One of the earliest signs of superior vena cava obstruction is the appearance of numerous small, purple, isolated venules distributed over the chest wall, and edema of the eyelids. Later, venous engorgement and edema of the neck, head and arms appear. The symptoms which usually appear later—dyspnea, hoarseness, dysphagia, chest pain, headache and drowsiness—are due to damage of local structures, impaired venous flow and to increased venous pressure in the head. A suspected diagnosis is confirmed by finding elevated venous pressure in the arms with a normal value in the femoral veins.

Once the clinician is convinced that this syndrome is present, a strenuous effort should be made to learn its cause. A list of possibilities is shown in Table I—modified from charts of McIntire and Sykes.¹ They comprise an average of figures from the world literature since 1904. About one-third of the cases are caused by primary malignancy, one-quarter by aortic aneurysms and one-fifth by chronic mediastinitis. The remaining one-fifth are the result of an assortment of uncommon causes.

TABLE I

<i>Etiology of Cases Confirmed by Postmortem</i>	<i>Distribution</i>
CHRONIC MEDIASTITIS . . .	20.7%
<i>(Traction or compression of superior vena cava by scar tissue)</i>	
a. Tuberculosis	36.7%
b. Syphilis	40.0%
c. Etiology undetermined	23.3%

PRIMARY MALIGNANT TUMORS 33.0%

a. Tumor of bronchus or lung	39.6%
b. Malignant lymphoma (including Hodgkin's disease)	25.0%
c. Sarcoma	10.4%
d. Tumor of thymus	10.4%
e. Leukemia	6.25%
f. Tumor of esophagus	2.09%
g. Chorionepithelioma	2.09%
h. Unclassified	4.17%

AORTIC ANEURYSM 26.9%

MISCELLANEOUS 19.4%

- a. Propagating thrombi from periphery
- b. Local phlebitis with thrombosis
- c. Metastatic cancer to thoracic organs
- d. Tumor tissue spilling into tributaries of superior vena cava
- e. Actinomycosis
- f. Tuberculous phlebitis

Of great importance in causing superior vena cava obstruction are the antero-mediastinal and the right laterotracheal chain of nodes into which drain the lymphatics of the lower trachea, right bronchi, and most of the right lung. These nodes lie chiefly in, or about, a triangle formed by the azygos vein, the right vagus nerve, and the superior vena cava. When enlarged from infection or malignancy, these nodes are a frequent cause of right innominate vein and superior vena caval obstruction.¹ Chronic mediastinitis often cannot be differentiated from a tumor except by an exploratory operation or autopsy. In this condition is found a dense mass of collagenous tissue binding the surrounding structures and constricting the superior vena cava. A history of severe tracheobronchial or pulmonary infection in many of these patients suggests that a chronic purulent lymphadenitis may have been the initiating factor.

Treatment is essentially that of the primary pathology. If a mass is present which does not appear to be an aneurysm, x-radiation may be tried as some temporary relief can be obtained should it be a lymphoma. If this fails, nitrogen mustard has been of benefit in some anaplastic carcinomas, as well as lymphomas, and is worthy of trial. A course of A. C. T. H. or Cortisone should be considered for cases of lymphoma.¹² Chronic fibrous mediastinitis, especially if there is a history of antecedent severe infection or chest trauma, should be suspected, and mediastinotomy with lysis of adhesions has been recommended if symptoms are severe and progressive.¹⁰ Symptomatically, phlebotomy is of benefit. Improvement from treatment can be ascertained objectively by measuring the venous pressure at intervals in both arms and thighs. It is to be expected that with the advent of antibiotics the incidence of chronic mediastinitis will continue to decrease during the next decade. Once it appears, occasional patients may live for several years with slowly increasing superior vena caval obstruction.

The prognosis in cases with aneurysms and malignancy (comprising in all about 70%) is poor. Twenty-two of twenty-four cases of chronic mediastinitis died in Ochsner series.¹¹

Case Discussion

The case under consideration presented the following clinical features of the superior mediastinal syndrome: the history of cough, hoarseness and dysphagia, the cyanotic hue of the face, neck, chest and arms, the numerous thoracic dilated venules and large external jugular-internal mammary anastomoses with an elevated antecubital venous pressure. An obstruction at, or below, the entrance of the azygos vein into the superior vena cava was indicated by the distended lateral thoracic and superficial epigastric veins which filled from above.

The second diagnosis of Laennec's cirrhosis was suggested by the history of inadequate diet and heavy alcoholic intake, by severe hepatomegaly and abnormally high BSP retention. Portal hypertension must have been present because of esophageal varices and evidence of mild ascites. The etiologic factors in esophageal varix formation from portal hypertension are weak, thin, supporting tissues, excessive movement, and trauma from a passing bolus of food.⁸ To these factors should be added increased venous pressure and stasis, as would be caused by azygos vein obstruction, since the latter is the most important outlet of blood from the esophageal veins into the superior vena cava. Esophageal varices from azygos vein obstruction were not mentioned by Carlson⁹ in his experimental obstruction of the superior vena cava in dogs, nor was any record found of esophageal varices in autopsy protocols of cases with mediastinal syndrome reviewed. Competent valves in the esophageal veins should prevent collateral flow reverse to that seen in portal hypertension.

Thus, in this case, the sites of circulatory obstruction were determined clinically and on the basis of the above reasoning, massive esophageal varices were predicted. Barium swallow followed by esophagoscopy confirmed their presence. The rapid progression of symptoms, the negative Hinton, the nonpulsatile nature and outline of the mass seen at fluoroscopy, the shrinkage of the mass following x-radiation, all point to a malignant tumor as the cause of obstruction rather than an aneurysm or chronic mediastinitis.

Summary

The pertinent literature, anatomy, symptomatology, etiology, treatment and prognosis of the superior mediastinal syndrome are briefly reviewed. A case having the typical features of this syndrome is presented because of the unusual feature of associated portal hypertension with esophageal varices. A discussion of the probable circulatory changes

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produced by an association of the two obstructed venous systems in this case is discussed on the basis of clinical data, inasmuch as postmortem material is not available.

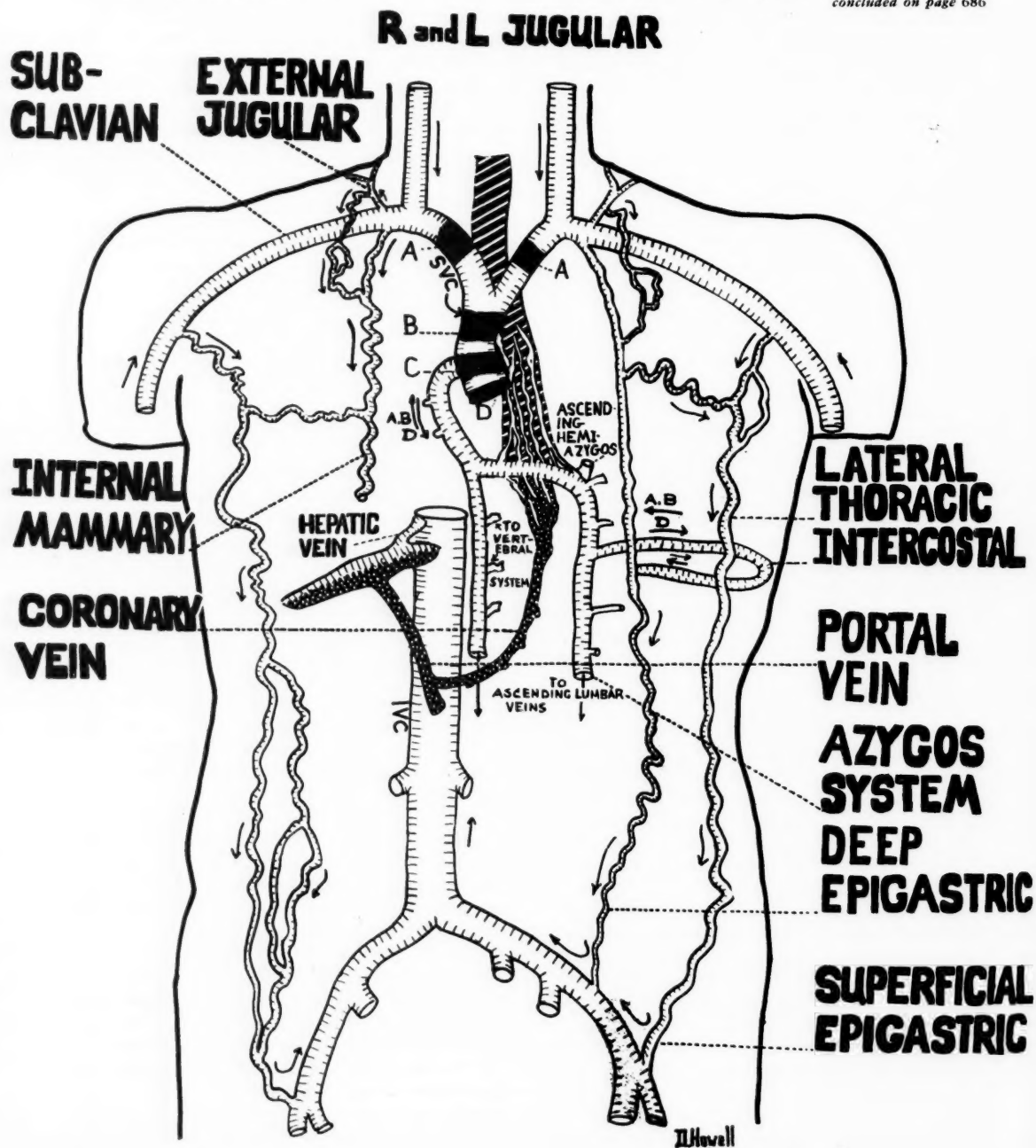
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WHY NOT THE AMA?

The action of the board of regents of the American College of Surgeons in requesting, last Spring, that the American Hospital Association consider the transfer of the program of hospital standardization from the College to the AHA on the basis that, when properly operated, it was an expensive service for the surgeons to finance unaided, touched off a nationwide discussion.

Happily the solution was reached at Boston when the College of Surgeons met there in annual conclave late in October. At that time the surgeons voted unanimously to continue the hospital standardization program of the College, but the action was not interpreted to mean that further consideration of proposals for the participation of other interested agencies in this program. The action did make clear that the College would continue its sponsorship and would consider no proposal which will not insure its continuation in the best interests of the public.

Elsewhere we reprint in this issue the editorial on "Hospital Standardization" written by Dr. George F. Lull, secretary and general manager of the AMA for the publication *Modern Hospital*, and which appeared in the November issue of that journal. This editorial, written prior to the action of the College of Surgeons in Boston, advances some worthwhile suggestions for the solution of the hospital standardization program that the College of Surgeons has supported with its own funds since 1916.

Undoubtedly the question will be the subject of debate in medical circles for many months ahead. But what has never been explained in any reports that have come to our attention regarding this situation is why the College of Surgeons did not bring their problem to the American Medical Association in the first place. Instead, the contact was with the American Hospital Association which went ahead and voted, through its House of Delegates at their September session, to set up a hospital standardization program, preferably taking over that of the College of Surgeons.

Those in the hospital field are the first to deny any interest in lay control of medical practice. Yet the facts stand that the action taken by the American Hospital Association would mean that the hospitals, with a preponderance of lay administrators, would act as judge and jury in medical matters, and this position would appear to be further advanced by the fact that the proposed 25-member commission to establish the hospital classifications would provide for only six physicians.

We can hardly blame the American Hospital Association for accepting the invitation to take over the standardization program when overtures were made to it. We can only raise our voice in criticism at the action of the board of regents of the College of Surgeons for not turning to their own medical organization—the American Medical Association—for help and guidance on their problem which was fundamentally a financial one.

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POSTGRADUATE EDUCATION

This Fall has started off with a bang for Rhode Island physicians. They have had two instructive and edifying series of lectures presented to them, even before the regular winter season has started.

The Third Annual Cancer Conference presented by the Cancer Committee of the Rhode Island Medical Society on October 18, was, in the estimation of every one with whom we have consulted, a remarkable symposium. It is unfortunate that there was not a larger audience present. We know that cancer is not to the average medical man the most interesting of subjects, but it should be.

It used to be said that one who knew syphilis knew all medicine. That is almost as true of cancer. Its manifestations are protean. One of the participants in the program, who had travelled a long way to get here, remarked that he would have been glad to come to this meeting even if he had not been going to take a part in it.

Dr. Scannell, of the Massachusetts General Hospital, continued his discussion of Cancer of the Lung, which he had started last year. We are pleased to say that we intend to print this in a later edition of our Journal. Dr. Leiter of Bethesda initiated us into the tremendous intricacy of experiments in cancer work down there. Oliver Cope told us about the new building at the Massachusetts General Hospital, filled with the most expensive apparatus manned by highly trained physicists, and gave us a necessarily sketchy but stimulating report on the use of radioactive isotopes.

Dr. Francis S. Moore, who was recently appointed Professor of Surgery at Harvard, gave an illuminative and discriminating talk on that, at present, doleful subject, cancer of the stomach. One must admit that at present progress in the treatment of this disease is advancing slowly, if at all. Such studies as Dr. Moore and his associates are making and their philosophical analysis of the problem at least show us what not to do and outline more intelligent procedures.

The motion picture on breast cancer appeared to be chiefly the work of Dr. Haagensen of the Presbyterian Hospital in New York. Many of us have seen and heard him demonstrate this subject. Dr. Haagensen is one of our very best teachers. We were greatly satisfied with the presentation rendered by Dr. Elvidge, who came all the way from the Montreal Neurological Institute, and the large series of x-rays he demonstrated were very interesting. His use of angiograms was particularly striking. Drs. Dargeon and Catlin of the Memorial Hospital in New York gave us demonstrations on their restrictive study of tumors in children and cancer of the oral cavity, which were of the high grade that we expect from that institution. It is unusually interesting to have Dr. Meyer carry on

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from where his famous father, Dr. Willy Meyer, left off in cancer of the breast. Altogether the limited group of doctors who attended this meeting must have felt that they were privileged people.

Lectures on the Diagnosis and Treatment of Heart Disease, sponsored by the Rhode Island Department of Health and arranged for by Dr. Marshall N. Fulton and his Committee on Postgraduate Medical Education, pretty well covered the broad modern knowledge of heart disease. Every speaker was outstanding in his knowledge of the section which he treated; and what is fully as important to the audience, they knew how to impart their knowledge in an interesting manner. In our next issue we will have an article summarizing the contents of these six lectures. It will pay you to study this carefully.

AMA DUES

During the year the Society has undertaken the collection of membership dues for the American Medical Association. Any physician who has overlooked the payment of his dues is cautioned to clear his indebtedness immediately in order that he may not lose his affiliation with the national organization.

And for the benefit of members of the Society who failed to note the previous announcement, we repeat that the AMA dues for 1951 will be \$25 for which will be included a subscription to the Journal of the AMA which presently sells at \$12. Thus, allowing for the journals to be received during the year, the AMA member will actually be paying \$13 as dues in 1951.

Fellowship in the Scientific Assembly has been preserved but the dues have been reduced from \$12 to \$5 per year. Fellows will be permitted to elect to take a special journal in lieu of the Journal of the AMA which they would ordinarily receive as members.

GENERAL PRACTITIONER AWARD

THE Rhode Island Medical Society has not furnished a general practitioner of the year, but the recipient of the 1950 American Medical Association's gold medal "for exceptional service by a general practitioner" has always been just over the line from us. We imagine that the people living in Seekonk or Rehoboth most of the time must almost feel themselves Rhode Islanders.

Dr. Dean Sherwood Luce of Canton, Massachusetts, has just received this award, and Canton is about as far away as he ever got from us. He was born only 74 years ago in Holliston, right over the state line. His father was a Yankee ship owner and sea captain who lost his ship and barely saved himself when his boy was only six years old. Then he retired and opened a store on Martha's Vineyard. People who know the Cape and Islands know that the Luces used to be mighty thick around there.

Dr. Luce then went to Phillips Andover, one of the oldest, most typical New England schools, but he had to quit to run the store on the Vineyard for a while. Then he went to Harvard Medical School, tending to the family business on the week-ends. After his internship he settled down in Canton, and he has been doing general practice ever since. Just to be consistent, he married a Canton girl who used to spend summers on the Vineyard. To keep up the medical tradition in the family, his only daughter, Mary, has become a biologist at the Lahey Clinic.

He has been affluent from the beginning of his practice; he did \$1100 of it the first year. That meant a great deal of hustling at 50 cents for an office call and deliveries at \$8, but with eggs at a

cent apiece, and milk at 5 cents a quart, one could live pretty well on that income.

Dr. Luce did not wish us to stress the financial aspects too heavily because he says, "I never made a lot of money out of it, and I never intended to."

He is a Councillor of the Massachusetts Medical Society and is Editor-in-Chief of a smart paper run by the Norfolk District Medical Society. He had previously been named the outstanding general practitioner of the year by his own Massachusetts Medical Society.

The medical profession of Rhode Island felicitates Doctor Luce on the distinguished award that has been bestowed upon him, and through him upon all general practitioners of the country. We are particularly pleased that the physician of the mid-century should be a New England neighbor.

HOSPITAL STANDARDIZATION

SINCE 1918 the American College of Surgeons, without assistance from other organizations within the profession, has sponsored a hospital standardization program, the purpose of which was "to create in the hospital an environment which will assure the best possible care of the patient." It has been recognized by the medical profession and hospital group alike that the College of Surgeons through this program has made a significant contribution to American medicine and to the field of hospital administration as well. The cost of the program to date has been estimated at approximately \$2,000,000, a financial burden which has been borne solely by fellows of the College.

Recently, the American College of Surgeons explored the possibility of conducting the program in cooperation with or by other interested organizations. The American Hospital Association expressed its interest in assuming responsibility for the program under its own aegis, and at its recent annual meeting in Atlantic City authorized an increase in dues of member hospitals for this purpose. A plan had been proposed which would create a 25 member commission within the American Hospital Association to include six members of the medical profession, six hospital administrators and 13 individuals with outstanding records as hospital trustees. The six-man medical committee was to have included three representatives of the American College of Surgeons and three of the American College of Physicians. To this committee was delegated the responsibility for formulating standards for those aspects of the hospitals' activities which were considered to be primarily of a professional nature. The determination as to which areas were primarily professional and which were administrative was, however, made the responsibility of the commission as a whole.

The American Medical Association, being of the

opinion that a program of hospital standardization, such as had been proposed, would directly affect standards of medical practice in hospitals, requested that action by the American Hospital Association in establishing the standardization program be delayed until all aspects of the problem could be given careful consideration. Acting through its board of trustees, the association entered into discussion with the American College of Surgeons and the American Hospital Association in the hope that a cooperative plan could be developed which would eliminate a dual standardization program with its consequent duplication of effort and needless expenditure of funds.

The three groups have been holding meetings, the last of which was also attended by representatives of the American College of Physicians, in an attempt to clarify the position of the several organizations involved. Much progress has been made in working toward the objective, a plan in which the best interest of the public, the hospitals and the profession are all considered. There has been no disagreement over the principle that the setting of standards for the professional aspect of the hospital would lie with members of the medical profession. The American Medical Association has not felt, however, that this principle was adequately safeguarded under the plan originally proposed, which would set up a commission as an agency of the American Hospital Association.

As expressed in discussions held during the past several weeks, the American Medical Association is prepared at this time to consider favorably one of the following alternate plans:

1. Continued sponsorship of the hospital standardization program by the American College of Surgeons, with financial support by the American Medical Association and other organizations directly concerned.

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2. Establishment of an individual commission, board or committee, with representatives from the American College of Surgeons, American College of Physicians, American Hospital Association and the American Medical Association, which would be charged with the responsibility of formulating standards for administrative and professional aspects of hospital activities, for conducting a unified inspection program for approval of hospitals which meet these standards; the financing of the cost of the commission, including the field inspecting service, would be borne on a proportionate basis by member organizations.

3. Transfer of the standardization program to the Council on Medical Education and Hospitals of the American Medical Association, with a unified inspection program conducted in connection with the field service now administered by the council

in the approval of hospitals for intern and resident training. (In general surgery the council presently conducts hospital surveys in behalf of the American College of Surgeons, the American Board of Surgery and the A.M.A.)

Pending outcome of present negotiations, we have been advised that the American College of Surgeons will continue its present program.

It is our hope that the program so successfully carried out by the college over the last 30 years can be expanded under a plan acceptable to all organizations concerned, and that such a program will prove even more effective in bringing about the results toward which the several organizations are striving, that of better patient care.

—GEORGE F. LULL, M.D.

Reprinted from *The Modern Hospital*, November 1950

RHODE ISLAND VOLUNTARY ADVISORY COMMITTEE FOR THE SELECTION OF DOCTORS, DENTISTS, AND ALLIED SPECIALISTS

DR. HOWARD RUSK, Chairman of the National Advisory Committee to Selective Service on the Selection of Doctors, Dentists and Allied Specialists, has appointed a Rhode Island Voluntary Advisory Committee for the Selection of Doctors, Dentists and Allied Specialists. Similar committees have been appointed in all other states of the United States. The members of the Rhode Island committee appointed by Dr. Rusk are Herman A. Lawson, M.D., Chairman; Edward A. McLaughlin, M.D., and Harold J. Pearce, D.M.D.

The Chairman is authorized to appoint additional members to the committee, and to appoint sub-committees to deal with problems concerning various areas or communities and different professions and specialties concerned in provisions of Public Law 779, 81st Congress. These appointments are subject to approval and confirmation by the National Committee.

The following sub-committee for the selection of physicians has been appointed:

Frederic J. Burns, M.D., Providence
Morgan Cutts, M.D., Providence
Waldo Hoey, M.D., Providence
Frank B. Littlefield, M.D., Providence
David Wright, M.D., Providence
Samuel Adelson, M.D., Newport
Earl F. Kelly, M.D., Pawtucket
Leo Dugas, M.D., Woonsocket
Whitman Merrill, M.D., Coventry
Samuel Nathans, M.D., Westerly

The following sub-committee for the selection of dentists has been appointed:

Harold J. Pearce, D.M.D., Providence
Allyn Sullivan, D.M.D., Providence
Morris Biderman, D.M.D., Providence
Edgar Besette, D.M.D., Providence

Michael Messori, D.M.D., Providence
William MacIntosh, D.M.D., Providence
Charles Heaton, D.M.D., Providence
Simon Ozarin, D.M.D., Newport
Archie Albert, D.M.D., Pawtucket
James Colgan, D.M.D., Pawtucket
Bernard Friedman, D.M.D., Newport
Gerard Archambault, D.M.D., Warwick
Charles Berard, D.M.D., Woonsocket
Edward Radlo, D.M.D., Pawtucket
Joseph Serra, D.M.D., Westerly

A sub-committee for the selection of Allied Specialists will be appointed. The designation "Allied Specialist" is intended to include, but not to be limited to, veterinarians, pharmacists, optometrists, and osteopaths.

The primary function of the Advisory Committee is to render advice and aid to the Selective Service System in Rhode Island in the orderly selection of doctors, dentists and others so that the essential health services of hospital and other health agencies in the state will not be adversely affected. The essential needs of all communities are to be protected in all possible ways. The committee has no function in relation to those individuals who are members of the organized reserve of any of the Armed Forces; such persons are not required to register with Selective Service, and are subject to decisions of that branch of the Armed Forces to which they belong.

The National Advisory Committee have stated that "in considering essentiality generally, three factors are primary: (1) The medical and health needs of the community, e.g., availability of physicians in sparsely settled communities where there is only one physician available; and essential public health services; (2) critical research; (3) professional teaching."

Bronchial Relaxant . . .
Antiallergic . . .
Expectorant . . .



Combined in a New Compound for Cough Control

Hydryllin[®] COMPOUND

incorporates these important components for the treatment of cough:

AMINOPHYLLIN (SEARLE) . . . *for bronchial relaxation;*

DIPHENHYDRAMINE (SEARLE) . . . *for antiallergic efficacy;*

POTASSIUM IODIDE . . . *for expectorant action—in a pleasant-tasting syrup base.*

SEARLE

RESEARCH IN THE SERVICE OF MEDICINE

SURVIVAL UNDER ATOMIC ATTACK

Reprinted from the Official U.S. Government Booklet Issued by the Executive Office of the President, National Security Resources Board, and the Civil Defense Office

KILL THE MYTHS

Atomic Weapons Will Not Destroy the Earth

ATOMIC BOMBS hold more death and destruction than man ever before has wrapped up in a single package, but their over-all power still has very definite limits. Not even hydrogen bombs will blow the earth apart or kill us all by radioactivity.

Doubling Bomb Power Does Not Double Destruction

Modern A-bombs can cause heavy damage 2 miles away, but doubling their power would extend that range only to 2½ miles. To stretch the damage range from 2 to 4 miles would require a weapon more than 8 times the rated power of present models.

Radioactivity Is Not the Bomb's Greatest Threat

In most atom raids, blast and heat are by far the greatest dangers that people must face. Radioactivity alone would account for only a small percentage of all human deaths and injuries, except in underground or underwater explosions.

Radiation Sickness Is Not Always Fatal

In small amounts, radioactivity seldom is harmful. Even when serious radiation sickness follows a heavy dosage, there is still a good chance for recovery.

SIX SURVIVAL SECRETS FOR ATOMIC ATTACKS

Always Put First Things First and Never Lose Your Head and

1. TRY TO GET SHIELDED

If you have time, get down in a basement or subway. Should you unexpectedly be caught out-of-doors, seek shelter alongside a building, or jump in any handy ditch or gutter.

2. DROP FLAT ON GROUND OR FLOOR

To keep from being tossed about and to lessen the chances of being struck by falling and flying objects, flatten out at the base of a wall, or at the bottom of a bank.

3. BURY YOUR FACE IN YOUR ARMS

When you drop flat, hide your eyes in the crook of your elbow. That will protect your face from flash burns, prevent temporary blindness and keep flying objects out of your eyes.

4. DON'T RUSH OUTSIDE RIGHT AFTER A BOMBING

After an air burst, wait a few minutes, then go help to fight fires. After other kinds of bursts, wait at least 1 hour to give lingering radiation some chance to die down.

5. DON'T TAKE CHANCES WITH FOOD OR WATER IN OPEN CONTAINERS

To prevent radioactive poisoning or disease, select your food and water with care. When there is reason to believe they may be contaminated, stick to canned and bottled things if possible.

6. DON'T START RUMORS

In the confusion that follows a bombing, a single rumor might touch off a panic that could cost your life.

FIVE KEYS TO HOUSEHOLD SAFETY

1. STRIVE FOR "FIREPROOF HOUSEKEEPING"

Don't let trash pile up, and keep waste paper in covered containers. When an alert sounds, do all you can to eliminate sparks by shutting off the oil burner and covering all open flames.

2. KNOW YOUR OWN HOME

Know which is the safest part of your cellar, learn how to turn off your oil burner and what to do about utilities.

3. HAVE EMERGENCY EQUIPMENT AND SUPPLIES HANDY

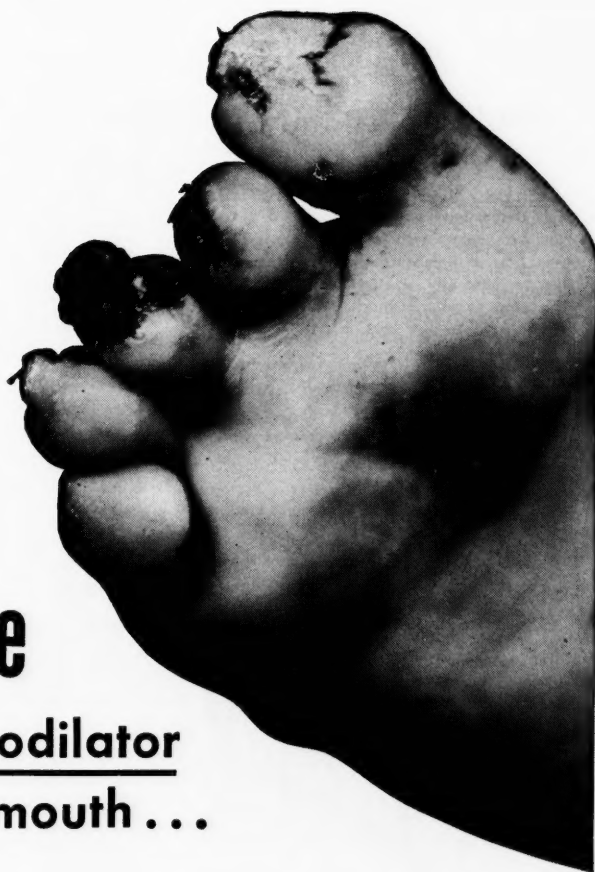
Always have a good flashlight, a radio, first-aid equipment and a supply of canned goods in the house.

4. CLOSE ALL WINDOWS AND DOORS AND DRAW THE BLINDS

If you have time when an alert sounds, close the house up tight in order to keep out fire sparks and radioactive dusts and to lessen the chances of being cut by flying glass. Keep the house closed until all danger is past.

5. USE THE TELEPHONE ONLY FOR TRUE EMERGENCIES

Do not use the phone unless absolutely necessary. Leave the lines open for real emergency traffic.



Priscoline

A potent vasodilator
effective by mouth...

Priscoline hydrochloride "has a definite place in the armamentarium of drugs... particularly in the field of *peripheral vascular disease*, or for conditions of visceral pain due to vascular spasm. Presumably the drug can be used to a great advantage in those cases in which sympathectomy would be advantageous. . . . It can also be used as a substitute for paravertebral sympathetic block."¹

"Priscoline per se appeared to slow down progression of the disease and produce symptomatic benefits in 88 per cent of 25 patients with early proliferative and degenerative *arthritis* involving peripheral joints."²

In doses of 25 to 75 mg., administered either orally or parenterally, Priscoline "usually is tolerated with few side effects."³

Comprehensive literature on request.

1. Rogers, Max P.: J.A.M.A., May 21, 1949
2. Wyatt, Bernard L.: Ann. West. Med. & Surg., Aug. 1949
3. Grimson, Marzoni, Reardon & Hendrix: Ann. Surg., 127:5, May 1948

PRISCOLINE, Tablets of 25 mg.; 10 cc. Multiple-dose Vials, each cc. containing 25 mg.

Ciba PHARMACEUTICAL PRODUCTS, INC., SUMMIT, NEW JERSEY

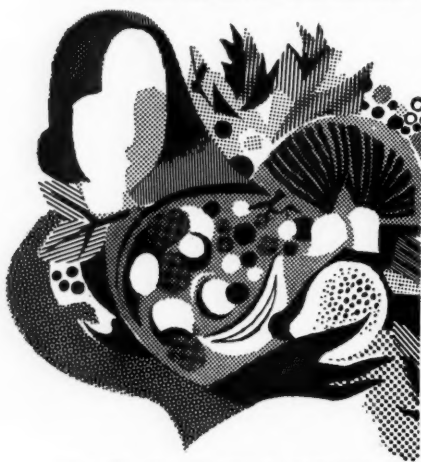
PRISCOLINE (brand of benzazoline) Trade Mark Reg. U.S. Pat. Off. 2/1867M

Multiple Vitamin Deficiencies

"... Deficiency diseases clinically evident are usually associated with additional tissue deficiencies of nutrients not yet clinically manifest." (Jolliffe, Tisdall & Cannon: Clinical Nutrition, New York, Hoeber, 1950, p. 633-634.)

Theragran[®]

THERAPEUTIC FORMULA VITAMIN CAPSULES SQUIBB



—supplies all of the vitamins indicated in mixed vitamin therapy in the clinically proved, truly therapeutic "practical formula"* recommended by Jolliffe.

Each Theragran Capsule gives your patient:

Vitamin A	25,000 U.S.P. units
Vitamin D	1,000 U.S.P. units
Thiamine hydrochloride	10 mg.
Riboflavin	5 mg.
Niacinamide	150 mg.
Ascorbic acid	150 mg.

Bottles of 30, 100, and 1000

* Thiamine content raised to 10 mg.

for true vitamin therapy . . .

specify **THERAGRAN[®]**

SQUIBB

AMA DONATES \$500,000 TO MEDICAL SCHOOLS

THE American Medical Association has taken the leadership in providing private support for hard-pressed medical schools.

By unanimous action of the Board of Trustees, it has appropriated \$500,000, as an endowment "without strings," to be given the medical schools as a nucleus for a nationwide fund to be raised from nonpolitical sources. This is in addition to the quarter of a million dollars—\$285,000 for 1951—which the Association has spent annually for years, through its Council on Medical Education and Hospitals and other departments, to advance medical education.

The half million dollar contribution comes from the Association's national education campaign fund. This means that every doctor, as he puts up his \$25, can know that a considerable share of it goes to insure training, and better training, for youngsters setting out on the hard road he has traveled.

Dramatic and far-reaching as it is, the action is hardly a new departure. The Association was founded more than a century ago by men who felt that their own integrity was challenged so long as unqualified men could call themselves "M.D."

Action of the Board came in swift response to the challenge made by President E. L. Henderson to the House of Delegates at the Cleveland session this month, that the profession take the initiative in raising nonpolitical funds for medical education rather than seek federal subsidy. The thought behind it, put not elegantly but perhaps accurately, is that people who feed at the federal trough must trot to the tune of whatever caller is currently established on the Potomac. And that is no situation to foster freedom of education and research.

"American medicine feels very strongly that it should not seek federal aid for medical schools until all other means of financing have been exhausted," said Chairman Louis H. Bauer of the Board. "The Board of Trustees announced its belief that funds for this purpose could be obtained from private sources—and as practical evidence of our sincerity of purpose, this appropriation has been made as the nucleus of a fund which we hope will be augmented by contributions from many other sources."

"The Board hopes that this action will become a stimulus to other professions, industries, businesses, labor groups and private donors. The American Medical Association urges all its members to contribute individually to this cause, and we hope that doctors will take the lead in securing contributions from other sources."

INSURANCE EXAMINATION FEES

The Rhode Island Medical Society two years ago was one of the prime movers in instigating national action relative to the adjustment of the schedule of fees of life insurance companies paid to physicians for examinations and for attending physician reports. The schedule had not been altered for fifty years until this action was initiated.

The Bureau of Medical Economic Research of the American Medical Association has submitted the list of companies as noted below that have adjusted their fees upward, in general about 50%.

Aetna	Metropolitan
American General	Mutual Life, New York
Bankers Life	Mutual Trust
Columbian National	National Life & Accident
Connecticut General	National Life, Vermont
Connecticut Mutual	New England Mutual
Continental Assurance	New York Life
Control Life	Occidental
Equitable Assurance, N. Y.	Ohio National
Equitable of Iowa	Pacific Mutual
Fidelity Mutual	Pan American
Franklin Life	Phoenix
Great Southern	Pilot Life
Guardian	Provident Mutual
Home Life	Prudential
Jefferson Standard	Security Mutual
Life Insurance of Vermont	Southland Life
Lincoln National	Southwestern
Manhattan	Standard, Oregon
Maccabees	State Mutual
Sun Life	
Travelers	
United Life & Accident	

104TH ANNUAL MEETING PROVIDENCE MEDICAL ASSOCIATION

Monday, January 8th, 1951

AT THE

MEDICAL LIBRARY, 8:30 p. m.

Multiple Vitamin Therapy

"... Patients fare much better when [the deficiencies] are treated simultaneously... Convalescence is delayed when one gives only one vitamin at a time..." (Spies & Butt in Duncan, G. G.: Diseases of Metabolism, ed. 2, Philadelphia, Saunders, 1947, p. 504.)

THERAGRAN

THERAPEUTIC FORMULA VITAMIN CAPSULES SQUIBB



Each Theragran Capsule gives your patient:

Vitamin A 25,000 U.S.P. units
Vitamin D 1,000 U.S.P. units
Thiamine hydrochloride 10 mg.
Riboflavin 5 mg.
Niacinamide 150 mg.
Ascorbic acid 150 mg.

Bottles of 30, 100, and 1000

When you want truly therapeutic dosages—specify **THERAGRAN®**

SQUIBB

DISTRICT MEDICAL SOCIETY MEETINGS

PAWTUCKET MEDICAL ASSOCIATION

A business meeting of the Pawtucket Medical Association was held at the Nurses Auditorium of Memorial Hospital on October 19, 1950.

The meeting was called to order by President James P. Healey at 12 noon. The minutes of the September meeting were read by the secretary and accepted.

A resolution drawn up by our committee on the death of Dr. James L. Wheaton was read by the secretary. Dr. Fox made the motion which was passed to adopt this resolution, engross it on our records, and send a copy to Dr. Wheaton's family.

Samples of newspaper advertising and a newspaper mat from the R. I. Medical Society as part of the national campaign against compulsory health insurance were introduced. Dr. Melucci made the motion which was carried that the mat "It's a Gift" be used as advertising by the Pawtucket Medical Association and expenditure up to \$50 be allowed. Half of such costs will be borne by the R. I. Medical Society.

Dr. Mara, chairman of the Diabetes Committee, asked all physicians to cooperate in the testing of urines during Diabetes week, November 12-18, 1950 and to send in reports on the cards provided.

Dr. Mara reported on a meeting of the Physicians Service Corporation. Approximately 110,000 members have bought the plan under the group basis. Contracts for individuals are being studied for revision.

Dr. Ferguson asked whether any action was being taken by the R. I. Medical Society on physicians going into the services. None has been taken as far as is known.

The meeting adjourned at 12:35 p. m.

Attendance 15.

Respectfully submitted,

HRAD ZOLMIAN, M.D., *Secretary*

KENT COUNTY MEDICAL SOCIETY

The regular meeting of the Kent County Medical Society was called to order by the president at 9:15 p. m., October 17, 1950.

The minutes of the previous meeting were read and approved.

Dr. Harold Collom of the Hospital Committee read a rough draft of the proposed by-laws for

the staff of the Kent County Memorial Hospital. These by-laws were discussed by the members of the society. Dr. Merrill's motion was passed that these by-laws be mimeographed and sent to each member of the society and a special meeting of the society be held in two weeks for approval of the by-laws.

The meeting adjourned at 11:15 p. m.

Respectfully submitted,

GEORGE L. YOUNG, M.D., *Secretary, pro-tem.*

PROVIDENCE MEDICAL ASSOCIATION

A regular meeting of the Providence Medical Association was held at the Medical Library on Monday, November 6, 1950. The meeting was called to order by the President, Dr. Frank W. Dimmitt, at 8:30 p. m.

By consent of the members present the Secretary omitted the reading of the minutes of the preceding meeting.

The Secretary read a communication from the Audubon Society of Rhode Island regarding a series of lectures to be given under the auspices of that society.

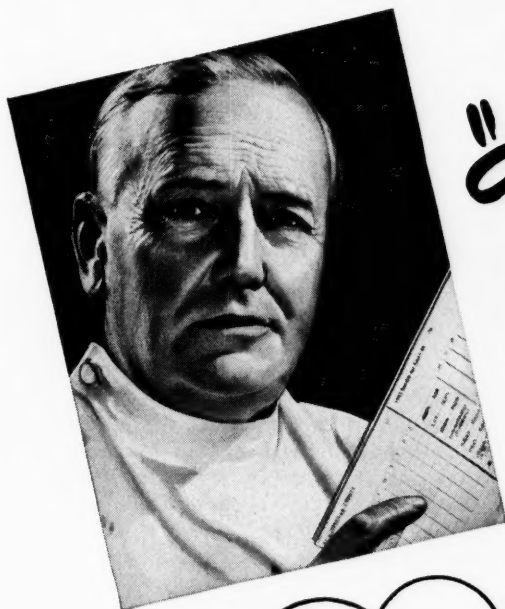
The Secretary read a communication from the State Medical Society relative to preliminary plans for disaster planning in the greater Providence area through the Associations committee on disaster and the state Society committee on national emergency medical service.

Dr. Dimmitt urged support by the members of the diabetes detection campaign. He called upon Dr. Louis I. Kramer, chairman of the State Society's committee on diabetes, who spoke briefly about the campaign to be conducted from November 12-18.

The President announced that the Association would not meet the first Monday in December, and instead would meet jointly with the Rhode Island Medical Society at Woonsocket on December 13. He read the program for this meeting, and he urged the attendance of all members.

The Secretary reported that the date for the January meeting, in accordance with the by-laws, would be January 1. He therefore moved that the Association's annual meeting be held on Monday, January 8, instead of Monday, January 1, 1951. The motion was seconded and adopted.

continued on page 674



THROAT SPECIALISTS REPORT

ON 30-DAY TEST OF CAMEL SMOKERS...

*"Not one single case
of throat irritation
due to smoking
Camels!"*

Yes, these were the findings of throat specialists after a total of 2,470 weekly examinations of the throats of hundreds of men and women who smoked Camels—and only Camels—for 30 consecutive days.

MY DOCTOR'S REPORT
CONFIRMED WHAT I KNEW
FROM THE START...CAMELS
AGREE WITH MY THROAT.
AND I LIKE CAMEL'S
RICH, FULL FLAVOR!

HARRY SOUTHWELL,
lawyer, is one of hundreds,
coast to coast, who made
the 30-Day Test of Camel
Mildness under the observa-
tion of throat specialists.

ACCORDING TO A NATIONWIDE SURVEY:

*More Doctors
Smoke Camels*

THAN ANY OTHER CIGARETTE

Yes, doctors smoke for pleasure, too! In a nationwide survey, three independent research organizations asked 113,597 doctors what cigarette they smoked. The brand named most was Camel.

B. J. Reynolds Tobacco Company, Winston-Salem, N. C.



*proof of performance
shown by
proof of preference*



Sealy's Accepted*
Orthopedic Mattress now

WORLD'S LARGEST SELLING ORTHOPEDIC MATTRESS

To patients suffering from morning backache due to sleeping on an inferior mattress or improperly fitted bed-boards, you may suggest the Sealy Orthopedic, with confidence.

*Accepted for advertising in the Journal of the American Medical Association, Sealy's Orthopedic is now the most widely used mattress of its type in the world. Since it is correctly *firm* it insures proper sleeping posture, gives natural support and complete comfort, too. For patients bothered by "low" morning backache, possibly caused by sleeping on a flabby mattress or make-shift bedboard, you may mention the Sealy Orthopedic *knowing* it is giving helpful relief in steadily increasing thousands of cases.



Sealy

SEALY MATTRESS COMPANY

79 Benedict Street Waterbury, Connecticut

PROVIDENCE MEDICAL ASSOCIATION

continued from page 672

The President introduced as the first speaker of the evening Dr. C. J. Bellavance, resident of Rhode Island Hospital, who, with Dr. Richard F. Mulroy, assistant resident, in the department of orthopedics at Rhode Island Hospital, presented a case report on "Tetanus."

Dr. Bellavance presented a case of tetanus who presented trismus and temperature of 100 on the first day. The second day, neck rigidity set in. The day following, his temperature rose to 107 rectally with twitches of the extremities, but no convulsions. The spine and abdominal muscles became rigid. From the 5th day on, the temperature gradually came down.

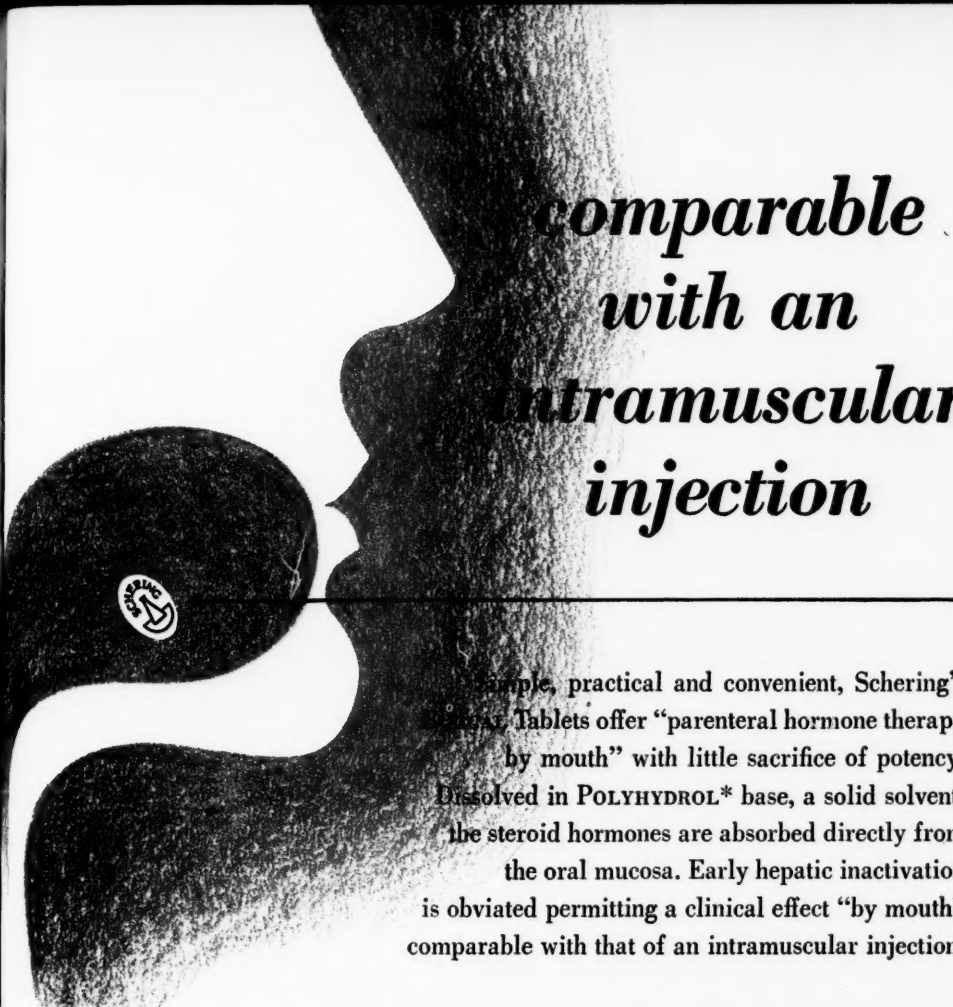
The prime importance in the treatment is early tracheotomy. It offsets laryngeal spasm and allows suction of secretions, thus avoiding pulmonary complications. Patient is put to rest in a darkened room, and given sodium luminol I.M. This patient was given 400,000 units of tetanus antitoxin. Foley catheter was inserted to prevent retention and to record the daily output. Patient was given 2000 cc D/W plus 1000 cc normal saline daily. The tracheotomy tube was removed on the 13th day.

Dr. Mulroy then reported on 15 cases of tetanus at Rhode Island Hospital out of 220,000 admissions. 4 of the 15 were seen by the local medical doctor at the time of injury. Incubation period was 4-19 days. Trismus was the first symptoms in all cases. None of these cases had received prophylactic injections. Four of the 5 patients that died, died in 36 hours after receiving antitoxin. All presented a picture of cerebral edema and hyperpyrexia. He feels the high temperature was caused by the antitoxin, and the patients died on this rather than the disease. 5 of the 15 cases received penicillin. One burn case developed tetanus while on prophylactic penicillin. 60-70% of the cases sustain fractures of the vertebrae. He feels tracheotomy is indicated in every case. Further treatment includes sedation and penicillin. Too much antitoxin should not be used e.g. only 1500 units with some around the wound, and then 1500 units I.M. for 2-3 days.

The second guest speaker was Mr. Elisha C. Mowry, an attorney, the president of the Rhode Island Branch, English-Speaking Union, who from personal experience discussed "Socialized Medicine in Great Britain," as observed by him on a visit to England.

Mr. Mowry discussed the background facts that lead to the present trend in Socialized Medicine. A great world wide revolution exists in all the countries, more of a social trend toward the age of common man. We are getting wealthy distribution through taxation,—a creeping socialism.

continued on page 676



*comparable
with an
intramuscular
injection*

Simple, practical and convenient, Schering's Buccal Tablets offer "parenteral hormone therapy by mouth" with little sacrifice of potency. Dissolved in POLYHYDROL* base, a solid solvent, the steroid hormones are absorbed directly from the oral mucosa. Early hepatic inactivation is obviated permitting a clinical effect "by mouth" comparable with that of an intramuscular injection.

BUCCAL TABLETS

Indicated in adrenal insufficiency—**CORTATE**[®] Buccal Tablets;
in male hypogonadism—**ORETON**[®] Buccal Tablets;
in the menopausal syndrome—**PROGYNON**[®] Buccal Tablets;
in habitual abortion—**PROLUTON**[®] Buccal Tablets.

Packaging: CORTATE Buccal Tablets (Desoxycorticosterone Acetate U.S.P.) 2 mg.; ORETON Buccal Tablets (Testosterone Propionate U.S.P.) 2.5 and 5 mg.; PROGYNON Buccal Tablets (Estradiol U.S.P.) 0.125 and 0.25 mg. and PROLUTON Buccal Tablets (Progesterone U.S.P.) 10 mg. — in bottles of 30 and 100.

*T.M.

Schering

**CORPORATION
BLOOMFIELD, N. J.**

BUCCAL TABLETS



PROVIDENCE MEDICAL ASSOCIATION

continued from page 674

Here in the United States we have our "deals." In England, Socialized Medicine was the most prominent issue because it affected everybody. Socialized Medicine did not originate with the Labor Party. All three parties wanted some form of socialized medicine. Britain's economic and medical situation in 1945 was bad. England was virtually bankrupt. There was a great shortage of doctors, hospitals, and nurses. The National Health Service was brought out at a time of economic trouble and medical shortage.

Bevan wanted all the doctors to be agents of the state under the control of the Minister of Health. On the other side, the British Medical Association did not want this. They wanted fees based on ability instead of the same fees for all classes even though there were differences in ability. Certain concessions were granted by the government, so the doctors were given contracts with the state. After initial opposition, the doctors decided to try it out, so by October 1949, 19,000 general practitioners and 95% of all the British people had signed up. The maximum load was 4000 patients per doctor. The average was 2000-3000.

They did not add one doctor, nurse, or hospital bed, so a tremendous load was added to the already overloaded facilities. Thousands of abuses arose. There was a tendency for the doctor to take on too many patients. They also had a tremendous amount of paper work. The busy practitioner could not spend the time per patient so they "dumped" the problems on specialists and into hospitals. The hospitals were filled to capacity and overcrowding. Another bad feature was the fact that the consultants and specialists are too busy with committee work to see many patients. Individual attention is sloughed over. There is not sufficient difference in pay between good and mediocre men. There is the fear that initiative will be smothered.

He concludes that idealism was set up on an impractical basis,—too hurriedly constricted by in-

RHODE ISLAND MEDICAL JOURNAL

experienced men. They took too big a step at the wrong time.

The cost of it all may sink Britain. Mr. Mowry feels it is here to stay as an accepted British institution. As time goes on, it may be more self sustaining.

The final paper, a case report on "Infectious Hepatitis Complicating Pregnancy," was presented by Dr. Leonard Sutton, resident of Rhode Island Hospital. Dr. Elihu S. Wing, Jr. formerly a resident at Rhode Island Hospital and presently a resident at Johns Hopkins Hospital, collaborated with Dr. Sutton in the preparation of the report.

Dr. Sutton presented an excellent talk on infectious hepatitis complicating pregnancy.

A case recently studied at the Rhode Island Hospital was admitted during her seventh month of pregnancy with weakness, nausea, and progressive jaundice of two weeks duration. Patient never had any injections or blood taken. Her urine darkened and stools became lightened. On physical, the blood pressure was 110/50, abdomen protuberant, uterus consistent with seventh month pregnancy. A non tender liver edge 2 cm. below the costal margin was felt. W.B.C. 12,000. Thymol turbidity 16, prothrombin time 48% of normal.

Patient was treated with bed rest, candy, low fat high vitamin diet. On the sixth day, she delivered a viable infant that was not icteric. Two days post partum, she became nauseated, jaundiced, and in two hours lapsed into a coma, with convulsive movements of the extremities. The abdomen was soft; the liver edge no longer palpable, and liver dullness was absent. Blood glucose dropped to 12 mg%. Acute hepatic insufficiency set in. Within two hours after I.V. glucose and 500 cc whole blood, patient could be roused. A constant infusion of glucose was started. The foremost factor in therapy was large amounts of I.V. glucose. She received 700 gms. in the first twenty-four hour period. The urine was free of sugar in spite of all this glucose. The I.V. fluids were discontinued in three days. The appetite gradually returned. Liver dullness returned to costal margin, and the prothrombin activity returned to 100%.

Zondek reported 29 cases of infectious hepatitis complicating pregnancy. They are divided into three classes,—the non icteric, moderately severe, and the acute fulminating cases.

The pathology is a general fulminating liver parenchymal destruction. A high carbohydrate diet may be life saving in all forms of the disease. Blood, plasma, and antibiotics also help. The liver has remarkable regenerative powers.

The meeting adjourned at 10:30 p. m.

Collation was served.

Attendance 74.

Respectfully submitted,

DANIEL V. TROPOLI, M.D., *Secretary*

Our 3 registered pharmacists

Serving . . .

PROVIDENCE—CRANSTON

. . . Friendly Pharmacy

22 Pontiac St. Corner Reservoir Ave.

Near Calart Flower Co.

Finest Prescription Service

Chronic Asthmatic

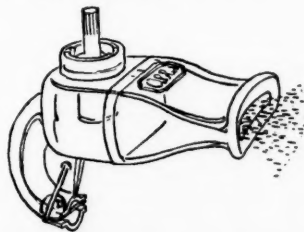
... back in the social swing

WHEN she feels an attack coming on, she simply reaches into her purse, takes out the Aerohalor® and takes three or four inhalations of a bronchodilating powder called NORISODRINE Sulfate. The bronchospasm ends quickly.

This take-it-with-you therapy is effective against both mild and severe asthma, has restored many chronic asthmatics to normal activity. Proved by clinical investigation,^{1,2} NORISODRINE has relatively low toxicity. Few side-effects result when the drug is properly used and, when they do, are usually minor.

Before prescribing NORISODRINE, however, please write for literature which discusses dosage and precautions. NORISODRINE Sulfate powder 10% and 25% is supplied in multiple-dose Aerohalor* Cartridges, packaged three to an air-tight vial. Aerohalor is prescribed separately. Abbott Laboratories, North Chicago, Illinois. **Abbott**

*Trade Mark for Abbott Sifter Cartridge
®Abbott's Powder Inhaler



1. Krasno, L. R., Grossman, M. I., and Ivy, A. C. (1949), The Inhalation of 1-(3',4'-Dihydroxyphenyl)-2-isopropylaminoethanol (Norisodrine Sulfate Dust), J. Allergy, 20:111, March. 2. Krasno, L. R., Grossman, M., and Ivy, A. C. (1948), The Inhalation of Norisodrine Sulfate Dust, Science, 108:476, Oct. 29.

NOTE THE NAME



NORISODRINE® Sulfate Powder

(ISOPROPYLARTERENOL SULFATE, ABBOTT)

Always Ready for Use when the Need Arises



HOMOGENIZED

... FOR HEALTH

Rich, creamy flavor . . added digestibility
 . . economy in use . . are direct results of
 cream being evenly blended throughout
 an entire bottle of Homogenized Milk.

A. B. MUNROE DAIRY
 GRADE A
HOMOGENIZED
 Soft Curd
MILK

A Fine Milk with Maximum Nutritional Value

THERE'S CREAM IN EVERY DROP. In homogenized milk the cream doesn't rise to the top—it stays distributed throughout the bottle—and every glassful is equally rich in health-building nourishment.

RICHER FLAVOR. There's a smooth, rich, full-bodied flavor. Both children and adults enjoy it.

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Some registrants who have indicated their desire to obtain a commission will also indicate their desire for a specific one of the services, namely the Army, Navy or Air Force. Ratios have been established by the Personnel Policy Board of the Office of the Secretary of Defense, which would allow the Army 70 percent of those applying for commissions, the Navy 10 percent and the Air Force 20 percent. As long as the vacancies are available within these percentages, individuals may obtain the service of their choice. After that, they must accept the service wherein vacancies exist or take their chances on induction.

Physician Quotas

You are all interested to know exactly what numbers of physicians are required for the armed forces in the current emergency. All of you realize that an answer is impossible at the present time, because none of us would be willing to predict the exact situation which confronts our Nation and the world during the months to come. All of us know that more physicians are required to support divisions in combat than those in training camps, and more physicians are needed to care for thousands of battle wounded than the ordinary ills of the same number of individuals. Many who write and speak professionally on world affairs are predicting frequent incidents during the years to come, such as we are now experiencing in Korea. The best we can do is to tell you that we constantly study requirements in view of the best prognostications of those with planning responsibility. Our basic staffing tables are revised in accordance with experience and the best professional knowledge in the world. Review bodies from civilian medicine have been established with the knowledge, advice, and sponsorship of The Surgeon General. With all these general facts in mind, the Army will probably require from civilian life during the next calendar year, somewhere in the neighborhood of 2,000 physicians. The Navy and the Air Force may together bring a similar number on duty.

It is not desired to dwell at length on the improvements that have been made in operating procedures since World War II. One notable advance, however, has been the development of a system whereby professional complements of units may be left at home when their units are brought to duty for training periods, with the understanding that they join the unit when it is assigned an operating mission. This is published in directive form and medical units brought to duty during the current emergency have reported without their professional complements.

The Reserve of the Future

To complete the picture, something must be said of the Reserve of the future. Committees of dis-

tinguished and sincere men have diligently studied this problem over the past few years, and the difficulties encountered in the relatively small mobilization we have just experienced should be proof positive that any policies that have thus far been developed are not panaceas to the ills of the reserve. More studies are in progress, and everyone is hopeful and desirous that a Reserve program will emerge that results in a firm foundation for the defense of the Nation and maximum satisfaction for the individuals participating therein.

In summary, it is hoped that these remarks will have impressed you with the fact that that segment of American medicine within the armed forces is conducting itself creditably during the present emergency. The profession outside the armed forces can feel pride in this achievement, because it developed and fostered those in the service. It is hoped, furthermore, that these remarks may have clarified some of the questions that are confronting you daily and that they will contribute to a general belief that those of us in planning positions within the armed forces are attempting intelligent and sound approaches to the problems of the profession.

The physician in the current emergency must come to the realization that his profession must render support to the armed forces during their mobilization for the defense of our country and

our way of life; that he should support and sponsor a strong, well-trained regular medical component in the armed forces to take as much of each initial impact as possible; that he should make his plans for his career to include at least one tour of duty in his Nation's armed forces; that he should impress all those entering the profession from the medical schools to so plan their personal careers so that a call of their country will not forever disrupt their professional lives; and last, that he must strive continuously to maintain a firm integration of military and civilian medicine in order that all segments of the profession may advance in harmony and in unison.

WASHINGTON COUNTY COMMITTEE

The Washington County Medical Society has named as its Professional Relations-Hospital Committee the following: Louis Cerrito, M.D., Chairman, of Westerly, Thomas A. Nestor, M.D., of Wakefield, and John M. O'Brien, M.D., of Wickford.

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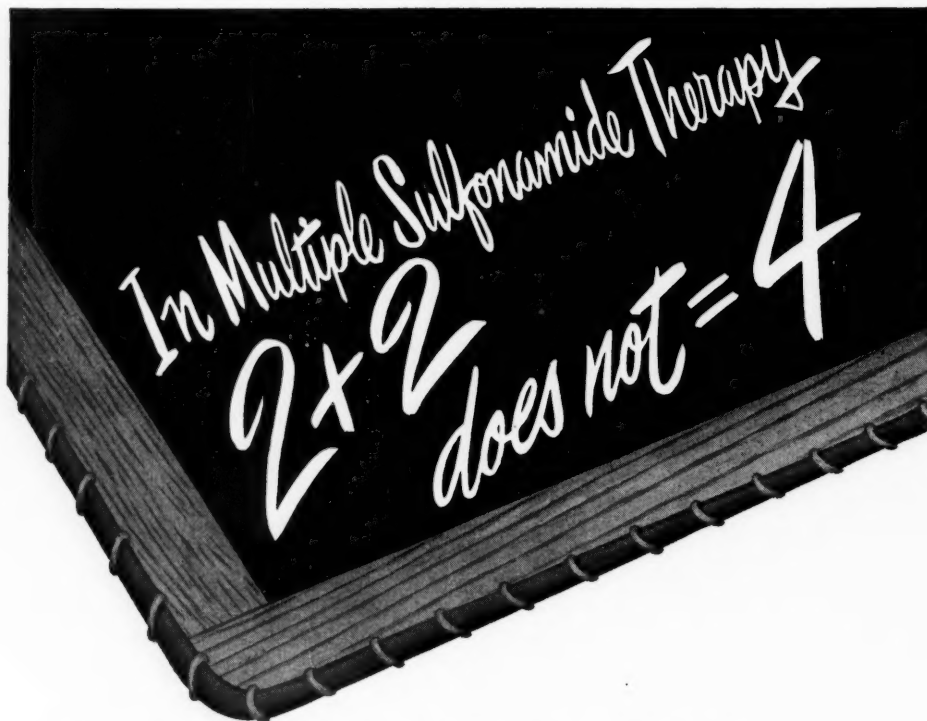
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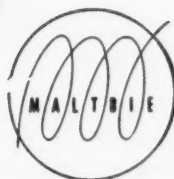
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1. Bargen, J. A.: Gastroenterology 13:275, 1949
2. Ivy, A. C., and Berman, A. L.: Minnesota Med. 22:815, 1939

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BALANCE SHEET — OCTOBER 31, 1950

ASSETS

	SEPT. 30, 1950	OCT. 31, 1950	INCREASE (DECREASE)
Cash in Banks and On Hand:			
Operating Account	\$195,336.03	\$224,716.30	\$29,380.27
Treasurer's Account	1,000.00	1,000.00	—
Accounts Receivable (Subscriptions)	305.45	202.20	(103.25)
TOTAL ASSETS	\$196,641.48	\$225,918.50	\$29,277.02

LIABILITIES

Accounts Payable (Surg.-Med. Service)	\$ 37,808.00	\$ 44,909.00	\$ 7,101.00
Accounts Payable (Hosp. Serv. Corp.)	4,309.52	4,699.28	389.76
Accounts Payable (R. I. M. S.)	—	—	—
Accrued Surgical-Medical Expense	59,994.00	70,676.00	10,682.00
Unearned Subscriptions	4,880.70	4,508.60	(372.10)
TOTAL LIABILITIES	\$106,992.22	\$124,792.88	\$17,800.66

Reserves:

Surgical-Medical Expense	\$ 89,649.26	\$101,125.62	\$11,476.36
TOTAL LIABILITIES AND RESERVES	\$196,641.48	\$225,918.50	\$29,277.02

STATEMENT OF INCOME AND EXPENSES

	MONTH OF SEPT. 1950		MONTH OF OCT. 1950		TOTAL TO DATE 10/31/50	
INCOME:		%		%		%
Earned Subscriptions	\$64,516.20	100	\$71,916.64	100	\$417,022.42	100
EXPENSES:						
SURGICAL-MEDICAL:						
Participating Physicians	\$33,065.55	51.3	\$48,301.00	67.2	\$245,570.00	58.9
Non-Participating Physicians	6,498.00	10.0	7,290.00	10.1	38,502.00	9.3
Total	\$39,563.55	61.3	\$55,591.00	77.3	\$284,072.00	68.2
OPERATING EXPENSES:						
Blue Cross under O.A.	\$ 4,309.52	6.7	\$ 4,699.28	6.5	\$ 27,759.73	6.6
Direct Expenses (Auditing) ..	—	—	150.00	.2	1,917.29	.5
Organization Expense	—	—	—	—	2,147.78	.5
Total	\$ 4,309.52	6.7	\$ 4,849.28	6.7	\$ 31,824.80	7.6
TOTAL EXPENSES	\$43,873.07	68.0	\$60,440.28	84.0	\$315,896.80	75.8
NET INCOME						
ADDED TO RESERVES	\$20,643.13	32.0	\$11,476.36	16.0	\$101,125.62	24.2

ENROLLMENT BY MONTHS

	CONTRACTS				SUBSCRIBERS				AVG. SUB. PER CONTR.
MONTH	"S"	"C"	"D"	TOTAL	"S"	"C"	"D"	TOTAL	
1 '50	1,418	3,844	6	5,268	3,844	7,996	16	11,856	2.25
2 '50	1,774	849	25	2,648	4,072	1,795	59	5,926	2.24
3 '50	2,351	1,108	38	3,497	6,007	2,283	76	8,366	2.39
4 '50	4,755	1,231	40	6,026	10,802	2,605	81	13,488	2.24
5 '50	2,183	2,910	110	5,203	5,169	6,762	249	12,180	2.34
6 '50	3,028	2,452	132	5,612	6,349	5,895	303	12,547	2.24
7 '50	1,432	2,131	53	3,616	3,289	4,938	121	8,348	2.31
8 '50	1,068	981	200	2,249	2,464	2,244	433	5,141	2.29
9 '50	1,153	1,792	151	3,096	2,584	3,688	348	6,620	2.14
10 '50	1,524	3,294	226	5,042	3,571	7,855	534	11,960	2.37
*11 '50	2,964	437	—	3,401	6,910	985	—	7,895	2.32
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* Preliminary Figure

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BOOK REVIEWS

MEDICAL DIAGNOSIS. APPLIED PHYSICAL DIAGNOSIS. Edited by: Roscoe L. Pullen, M.D., F.A.C.P. W. B. Saunders Company. Second Edition. Philadelphia and London, 1950. \$12.50.

The second edition of this well-accepted textbook of *MEDICAL DIAGNOSIS* presents methods of examination of the entire body through the regional approach and emphasizes the correlation of bedside observation and accessory diagnostic techniques. The new edition makes use of additional illustrations and color plates. The chapters dealing with the eye and abdomen have been rewritten, placing the emphasis on regional manifestations of disease. A discussion of modern laboratory tests of aid in the diagnosis of renal and liver disease have been added. The place of x-ray methods and the use of opaque materials is discussed. The discussion of electrocardiography has been revised to include the use of unipolar leads and basic principles of electrocardiography.

The second portion of the book has been altered, placing emphasis on diagnostic techniques. Chapters on military medicine and insurance prognosis have been deleted. The material in previous discussions of mental measurement, coma, and occupational injury have been either omitted or included in other discussions. A new chapter presents the pathologic physiology, signs and symptoms, and laboratory methods which allow one to recognize the various diseases of the blood. The book will be useful, not only for the student first learning diagnostic measures, but will increase the practicing physician's acumen in medical diagnosis. The esteem in which the previous edition was held may

be evaluated by the simple fact that the copy in the Rhode Island Medical Library has been stolen. Experience has shown that only the better textbooks are thus honored.

RUSSELL P. HAGER, PH.D., M.D.

BREAST DEFORMITIES AND THEIR REPAIR by Jacques W. Maliniac, M.D. Grune & Stratton, Inc. N. Y., 1950. \$10.00.

This small but unique textbook describes the work and knowledge of an experienced plastic surgeon regarding deformities of the breast and their repair. Dr. Maliniac reveals his two decades of experience in mammo-plastic procedures from the days of Venus to the present. He definitely states that one must understand the anatomy, embryology, and physiology of the breast before undertaking reparative procedures. But with this knowledge as a background, one will, avoid unnecessary post-operative complications, both functional and aesthetic. The various deformities and the methods which have been used in correcting them are clearly outlined. Dr. Maliniac points out both the favorable and unfavorable procedures which have undergone the test of vast clinical experience, and describes those which are now in widespread use. The book also has many drawings and pictures that clarify the various procedures in mammo-plasty.

BERT S. JEREMIAH, M.D.

TECHNIQUES IN BRITISH SURGERY. Edited by Rodney Maingot, F.R.C.S. W. B. Saunders Company, Philadelphia, 1950. \$15.00

This volume is a selection of essays on various surgical subjects chosen somewhat at random. It is not intended to be in any sense a comprehensive presentation of general surgical techniques. It comprises thirty-two chapters by as many different authors. These skip rather haphazardly from The Management of Head Injuries in Civil Life to Spinal Tumors to Surgery of the Thyroid Gland, and so on. While it includes a chapter on mammo-plasty, for example, there is nothing on carcinoma of the breast.

Each author has adhered to his own style without any attempt at uniformity or standardization in the handling of material. As is usual in British medical writings the text is lucid and delightfully

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readable. The illustrations which employ varied pictorial techniques are nevertheless unusually clear and helpful.

The Editor writes: "This book . . . is, I venture to hope, a liberal cross-section of British surgery as practiced today. It may be argued that the section should have been made more obliquely so as to include many more outstanding contributors and to ensure that the widest possible field had been covered. If this book fulfills the high hopes of popularity I confidently anticipate, then no doubt at some future date serial sections will be undertaken."

The reader is impressed by the very close similarity in methods presently employed in Britain and in America. While this may seem to make a book of this sort somewhat superfluous, it nevertheless adds assurance to the apparent world-wide trend toward standardization. Its place in the surgical literature is somewhat akin to Surgical Practice of the Lahey Clinic published a few years ago. It is certainly a pleasant addition to any surgical library and the advent of more "serial sections" in the future will enhance its usefulness.

SEEBERT J. GOLDOWSKY, M.D.

A TEXTBOOK OF GYNECOLOGY by Arthur Hale Curtis, M.D. and John William Huffman, M.D. W. B. Saunders Company, Philadelphia, 1950. \$10.00

This standard work has been thoroughly revised and is published in its sixth edition with the aid of a junior author, John W. Huffman, M.D.

The chapters on Embryology and on Urinary Tract Problems in Gynecology show extensive revision. There is much new material particularly on ovarian tumors and dyspareunia.

The section on Pelvic Anatomy prepared in collaboration with Dr. Barry Anson continues to be a particularly fine presentation.

WILLIAM ALLEN REID, M.D.

PATHOLOGIC PHYSIOLOGY: MECHANISMS OF DISEASE. William A. Sodeman, editor. W. B. Saunders Company, Philadelphia, 1950. \$11.50

This book is representative of a current trend toward collaborative authorship. The results in the present instance are pleasing from several standpoints: The contributions stem from 25 well-known authorities; the contents have been carefully selected and edited to prevent duplication of material; a timely advance has been made in the effort to interpret pathological conditions in the light of disturbed physiology.

The main sections include: The Circulatory, Respiratory, Digestive and Locomotor Systems; the Blood and Spleen; Urinary Tract; Endocrine

continued on next page

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The general outline resembles the usual text in physiology. The essential difference is that the material is significantly interspersed, correlated and augmented with the clinical picture of disease. While an apparent effort has been made to eliminate undue emphasis on etiology, symptoms and treatment, the considerable bulk of such descriptive material remaining is not detrimental. The book is recommended as a source of inspiration for all who are concerned with the rationale of disease.

WENDELL T. CARAWAY, PH.D.

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CIRCULATORY MANIFESTATIONS OF OBSTRUCTION OF THE SUPERIOR VENA CAVA *concluded from page 662*

- ⁶ Ehrlich, W., Ballon, H. C., Graham, E. A.: Superior Vena Cava Obstruction with Consideration of the Possible Relief of Symptoms by Mediastinal Decompression. *J. Thorac. Surg.*, Vol. 3, 352, 1934.
- ⁷ Hinshaw, H. C., Rutledge, D. I.: Lesions in Superior Mediastinum which Interfere with Venous Circulation. *J. Lab. and Clin. Med.*, Vol. 27, 908, 1942.
- ⁸ McIndoe, A. H.: Vascular Lesions of Portal Cirrhosis. *Arch. Path.*, Vol. 5, 23, 1928.
- ⁹ Carlson, H. A.: Obstruction of the Superior Vena Cava in Experimental Study. *Arch. of Surg.*, Vol. 24, 669, 1934.
- ¹⁰ Gray, H. K., and Skinner, I. C.: Constrictive Occlusion of the Superior Vena Cava; Report of three cases in which patients were treated surgically. *Surg., Gynec., and Obst.*, Vol. 72, 923, 1941.
- ¹¹ Ochsner, A., and Dixon, J. L.: Superior Vena Caval Thrombosis: Review of the literature and report of cases of traumatic and infectious origin. *J. Thoracic Surg.*, Vol. 5, 641-672, 1936.
- ¹² Pearson, O. H., et al. A. C. T. H. and Cortisone—induced regression of lymphoid tumors in man. *Cancer*, Vol. 2, 943-945, 1949.

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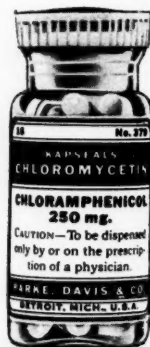
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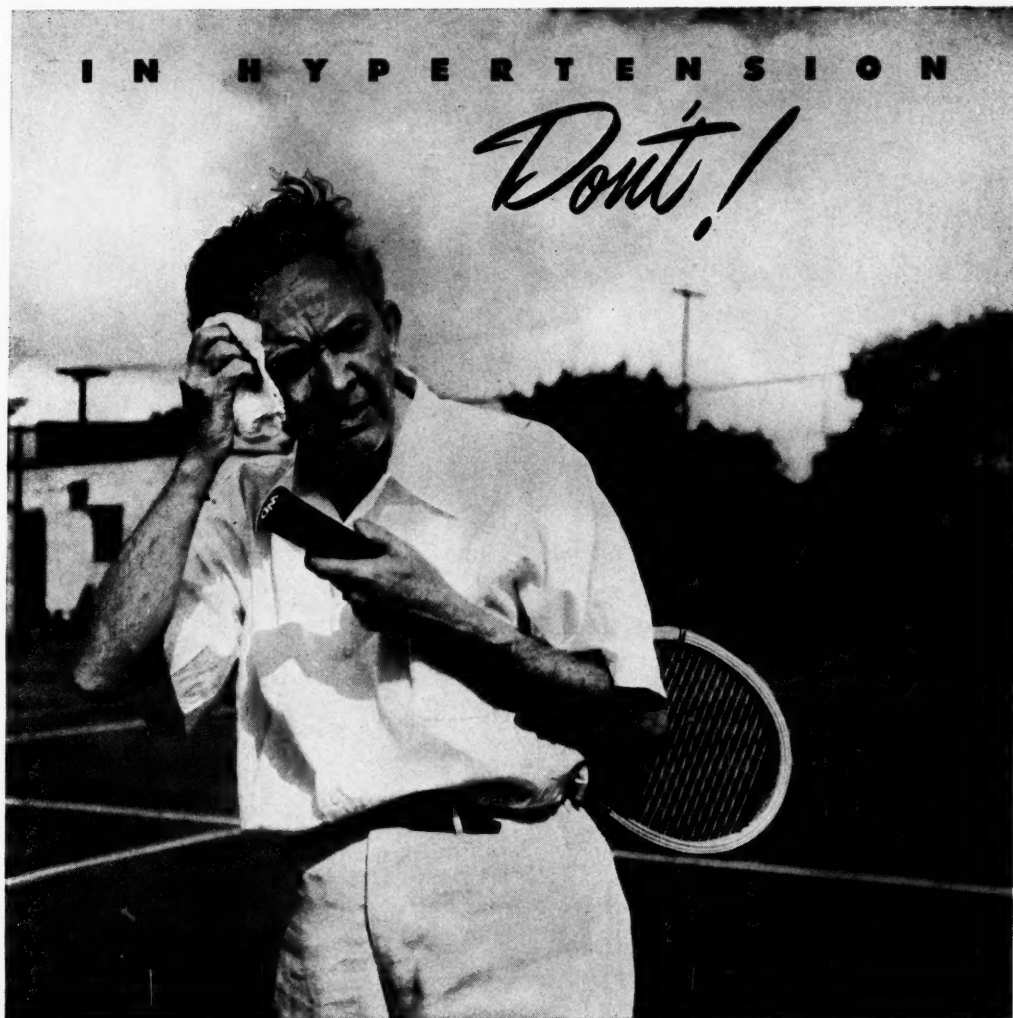
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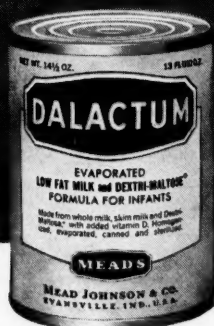
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